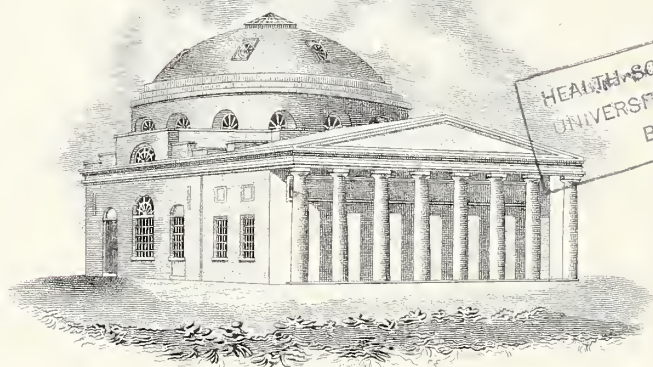


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NUMBER 1

THE OUTLOOK IN CARCINOMA OF THE COLON AND RECTUM*

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Evanston, Illinois

Malignant disease of the colon and rectum is a cause of death sufficiently common to warrant repeated studies and consideration of the present day methods of diagnosis and treatment of this affection. The Metropolitan Life Insurance Company¹ estimates the average of the standardized annual death rate for intestinal cancer to be 6.6 per 100,000 and for cancer of the rectum and anus to be 3.4 per 100,000. The death rate increases with advancing age. Between 1920 and 1929 the death rate from carcinoma of the intestine (97 per cent colon) increased from 7.1 to 9.4 and carcinoma of the rectum increased from 3.2 to 4.2². Part of this increase may be attributed to more accurate diagnosis and more frequent autopsies. According to Dixon³ 51% of gastro-intestinal malignancies are in the large intestine. Of the colon cases, roughly one-third are in the right half, one-third in the sigmoid, and one-third in the transverse and descending colon⁴. The average duration of symptoms before the patient gets competent surgical treatment is far too long in both carcinoma of the colon and the rectum ranging from 6 to 13 months. Over 50 per cent of cases are inoperable on admission to the hospital⁵. Self-treatment, poor diagnosis and fear of surgery contribute to the often fatal delay in the institution of proper treatment and the conversion of operable cases to inoperable ones. To combat these influences, the public must be educated as to the dangers of self-medication and both the laity and some of the doctors must be informed of the tremendous advances which have been made in

the treatment of these cases. Particularly must the early or suspicious symptoms of these conditions repeatedly be emphasized. The earlier the diagnosis and treatment, the greater is the chance of a cure. Twenty years ago, the five year survival period of carcinoma of the colon and rectum was about 28 per cent⁶. Dixon and Pemberton⁷ found that 56 per cent of cases of carcinoma of the cecum of all grades of malignancy which had been subjected to a resection lived five or more years. Fifty-two per cent of T. E. Jones's⁸ cases of carcinoma of the rectum were well at the end of five years. With the improved methods of treatment which have been taught by these authors and by Cattell and Lahey, Rankin, David and others, these percentages should be generally improved. Dixon and Olson⁹ reported 12 cases of carcinoma of the colon who survived 20 years after operation. In two of these cases, loops of small intestine had to be resected on account of direct extension of the growth and in one there had been a resection of the bladder.

EARLY DIAGNOSIS OF CARCINOMA OF THE COLON AND RECTUM

The early diagnosis of carcinoma of the colon and rectum often presents one of the most difficult problems in medicine. The disease may be extremely insidious and the earliest symptoms may be so trivial as to be entirely overlooked. Often the first symptoms do not coincide with the onset of the disease. The really striking symptoms such as intestinal obstruction, mass, hemorrhage, and marked anemia may only appear after the lesion is far advanced. Inasmuch as the probability of cure is so much greater in the early cases, all patients and their physicians should be made acutely aware of the suspicious symptoms of early carcinoma of the colon and rectum.

For clinical consideration, the colon and rectum are best considered under three heads, namely, the right colon, the left colon including the sig-

* Presented before the Terre Haute Academy of Medicine, October 1, 1937.

¹ Metropolitan Life Insurance Company, Monograph 1, May, 1935.

² Rankin, F. W., Borgen, J. A., and Buie, L. A.: The Colon, Rectum and Anus, W. B. Saunders Co., 1932, pp. 452.

³ Dixon, C. F.: Int. Abstr. of Surg. in *Surg. Gyn. & Obstet.*, December, 1936.

⁴ Partsch: *Muench. med. Wchnschr.*, 1935. I:1054 (quoted by Dixon).

⁵ Raiford, T. S.: *Ann. Surg.*, 101:863, 1935.

⁶ Pemberton, Ide J., and Dixon, C. F.: *Surg. Gyn. & Obstet.*, 58:462, February, 1934.

⁷ Dixon, C. F.: Proc. of Staff Meetings of Mayo Clinic, August 18, 1937.

⁸ Jones, T. E.: *Ann. Surg.*, 102:64, 1935.

⁹ Dixon, C. F., and Olson, P. F.: *Surg. Gyn. & Obstet.*, 62:874, May, 1936.

moid and recto-sigmoid and the rectum. The right colon has a different embryological origin from the left colon: it is thinner walled, its content is fluid instead of formed as in the left colon, and its absorptive function is to be contrasted with the storage function of the left side.

For the right and left colon and for the rectum certain symptoms should arouse suspicion and warrant more intensive study. These early symptoms are not striking but may be of the weightiest significance and should be stressed accordingly. *Any variation from normal bowel habits* should be heeded. The patient may notice that his bowel movements are more frequent and are accompanied by the passage of mucus. Diarrhea may occur occasionally or alternating with constipation or constipation may exist alone. *Any mild digestive disturbance* is next in importance of the early symptoms of carcinoma of the colon and rectum. The patient may complain of "dyspepsia," mild abdominal pain, belching, flatulence which seem in some way to be related to bowel activity. If all cases of these types were studied intensively many of the carcinomas would be found earlier. Consideration of the symptoms in detail may indicate what portion of the colon or rectum is involved.

SYMPTOMS AND DIAGNOSIS OF CARCINOMA OF THE RIGHT COLON

In cases of carcinoma of the cecum and ascending colon, the earliest symptoms may be a variation in bowel habits with the passage of mucus. Diarrhea occurs occasionally and constipation is uncommon. Digestive disturbances may consist of mild pain, flatulence, epigastric distress, etc. Jones¹⁰ points out that, save for low fever and mild leukocytosis, these cases often simulate chronic appendicitis. Obstructive symptoms are absent unless the tumor involves the ileocecal valve. As the disease progresses, weakness and loss of weight become outstanding features. The red blood count and hemoglobin may decrease markedly and values as low as 1,300,000 and 25 per cent respectively may be found in the advanced cases. Coincident with this anemia occult blood is almost invariably found in the stool. In suspicious cases the patient should be placed on a meat-free diet and repeated tests for occult blood in the feces should be made. Finally, the tumor may become so large that a mass is palpable in the right lower quadrant. This mass may be tender due to the inflammation and infection secondary to perforation of the wall of the bowel by the neoplasm. Unfortunately, this mass may be the first symptom which sends the patient to his physician. A positive diagnosis can usually be made by x-ray before an appreciable mass presents itself. After the mass is present, the x-ray diagnosis offers little difficulty. In the experience of Dixon³ and his colleagues, "the most common erroneous diagnosis in the presence of

carcinoma of the cecum or the right side of the colon is unexplained secondary anemia, pernicious anemia, peptic ulcer, cholecystic disease, or appendiceal abscess."

SYMPTOMS AND DIAGNOSIS OF CARCINOMA OF THE LEFT COLON

On the left side of the colon, including the sigmoid and rectosigmoid, the diagnosis of carcinoma may be somewhat easier. The earliest symptoms are found in any variation in normal bowel habits. Constipation is relatively common although there be frequent discharges of mucus from the bowel, sometimes termed "diarrhea" by the patient. Gross blood is often seen by the patient either on the surface of the stool or mixed with it; occult blood is practically always present. On the left side of the colon the obstructive symptoms are very much more common and unfortunately may be the first symptoms which bring the patient to the doctor. These symptoms may be merely periodic cramp-like pains, or there may be added to these the symptoms, such as abdominal distension and vomiting, of a grave, complete obstruction. In these cases the barium enema x-ray examination is almost 100 per cent positive. Moreover, sigmoidoscopic examinations will disclose growths in the sigmoid and recto-sigmoid and make them accessible for biopsy, although the latter is rarely needed for the diagnosis but is of value for prognosis. Dixon³ finds the most common erroneous diagnoses in cases of carcinoma of the left colon to be "appendicitis, colitis, spastic colon or disease of the adnexa."

SYMPTOMS AND DIAGNOSIS OF CARCINOMA OF THE RECTUM AND ANUS

Unfortunately, as in the right and left colon, the early symptoms of carcinoma of the rectum are undependable and variable. Of first importance is the detection of any irregularity of normal bowel habits. Irritability of the bowel, increase in the amount of gas, occasional constipation or slight diarrhea, frequent mucous discharges are all symptoms which will bear study and investigation. Rankin, Barga and Buie² consider the most constant sign of malignant disease of the rectum to be blood which may be mixed with the stool or streak it. This bleeding, however, is rarely accompanied by an anemia and when it is, it has a more serious significance than when the anemia accompanies a right sided lesion. Pain is inconstant; when present in the low back, radiating to the hips and thighs, metastases are suggested. Loss of weight comes late in carcinoma of the rectum and is not a valuable aid in the early diagnosis². Neoplasms of the ampulla of the rectum give symptoms later than those at the recto-sigmoid and anus. *Of utmost importance is the digital examination of the rectum.* Practically all rectal carcinomas may be discovered by this simple procedure and in no suspicious case should it be omitted. With the other hand on the abdomen,

¹⁰ Jones, T. E.: Med. Clin No. America, 19:1831.

The examining finger may reach higher in the rectum. Carcinoma, however, cannot be entirely excluded without proctoscopic or sigmoidoscopic examination. The lesions are usually single and form either a crater-like or a cauliflower-like mass; the adjacent tissues are usually normal². A biopsy is best carried out to give information as to the degree of malignancy. A small piece of tissue is removed and the base cauterized. The most common erroneous diagnoses in carcinoma of the rectum and anus are colitis and hemorrhoids. Many ill-advised operations for supposed hemorrhoids endanger patients with carcinoma of the rectum.

TREATMENT OF CARCINOMA OF THE COLON AND RECTUM

Dr. Gemmill¹¹, of York, Pennsylvania, has made the wise observation that "in this country the great mass of human ills is diagnosed and treated outside of the great medical centers." Many patients with lesions of the large bowel and rectum may be able to travel to the great centers for treatment but, after all, most of the cases will probably be treated by the surgeons in smaller hospitals¹². In all communities away from the large centers it is of utmost importance that the medical man suspect and recognize the carcinoma early and that the surgeon be informed and experienced in the best methods of treatment. Unfortunately, a large percentage of cases (38 per cent in Gemmill's series) are not admitted to the hospital until they are acutely obstructed and then often fall into the hands of surgeons who have given little thought or have not had much experience in the treatment of carcinoma of the colon and rectum. Because the cases are late and because the surgeons are not informed, the operative mortality may be three to eight times that of earlier cases in more competent hands. Misapprehension as to the inconveniences of a permanent colostomy has contributed to the delay in treatment.

Except for some lesions of the anus, treatment by radium and x-ray is limited largely to those cases which are deemed inoperable. The decision as to operability in carcinoma of the colon and rectum varies considerably with different surgeons. Some will approach much more difficult situations than others. Obesity and advanced age will increase the operative mortality. Fixation of the tumor to adjacent organs renders its removal more difficult but does not necessarily exclude it. Naturally the outlook is more serious in the more malignant grades of carcinoma. The presence of demonstrable metastases in the liver generally but not always excludes radical resection; sometimes the resection is carried out as a palliative.

Of utmost importance is the proper preparation for operation of the patient with carcinoma of the

colon or rectum. Patients who are acutely obstructed are usually subjected to an enterostomy proximal to the obstruction as a first stage before radical resection is considered. Occasionally it may be possible to combine a decompression of the bowel with a resection as demonstrated by Lahey¹³.

In nonobstructed cases, a careful regimen of preparation should be carried out. A mild purgation should be carried out for several days. Jones¹⁴ uses one ounce of magnesium sulphate in eight ounces of water every morning over four hours for many days. Six drams of phospho-soda night and morning for two days preceding surgery is our routine. Frequent cleansing irrigations of the bowel will be done and the patient placed on a bland high caloric non-residue diet. The kidneys, bladder and prostate are checked. Dehydration, if present, must be overcome. In lesions of the right colon, several blood transfusions may be necessary before resection. Elsewhere, at least one transfusion is best performed before operation and one after. Intra-peritoneal preoperative vaccination is warmly advocated by some but apparently in the hands of others equally good results are obtained without it.

The surgical procedures are usually thoughtfully planned beforehand but may have to be modified on the operating table. Special care must always be used to prevent contamination in operation on the colon. An intimate knowledge of the blood supply of the colon is indispensable. Operations on the colon are difficult and exacting and the operative mortality is in inverse ratio to the thoughtfulness and experience of the surgeon. It is a mistake to plan a small operation for a small lesion and a large operation for a large lesion. The reverse is probably true.

For lesions of the cecum and ascending colon the Lahey modification of the Mikulicz technique is the safest operation¹³. The entire right colon and part of the transverse is brought entirely out of the abdomen and resected without peritoneal contamination. The proximal loop may be decompressed if desired. Rankin's method of end to side ileo-colostomy followed in the same stage or at a later stage by resection of right colon is a beautiful procedure but less safe in average hands.

In lesions of the transverse colon an obstructive resection preceded, if necessary, by a cecostomy seems best. Resection and end-to-end anastomosis with the aid of the Rankin clamp is also useful but not quite as safe.

For lesions of the sigmoid and descending colon the obstructive resection is by far the best operation and carries a very low operative mortality. In all these operations care is taken to remove the regional lymph nodes.

For lesions of the rectum and recto-sigmoid, the writer prefers the two-stage Lahey technic which

¹¹ Gemmill, W. F.: *Surg. Gyn. & Obstet.*, 64:738, April, 1937.

¹² Rosser, C.: *J. A. M. A.*, 106:109, 1936.

¹³ Lahey, F. H.: *Surg. Gyn. & Obstet.*, 54:923, 1932.

is extremely safe if properly done. Jones¹⁴ prefers the one-stage abdomino-perineal operation and Rankin¹⁵ the two-stage abdomino-perineal operation. For growths at the recto-sigmoid David¹⁶ has devised a type of obstructive resection where the more radical operations are contra-indicated. Colostomy and posterior resection carries a lower operative mortality but a poorer prospect of prolonged survival.

The operative mortality in colon and rectum surgery varies from 5 to 40 per cent depending upon the presence or absence of obstruction, the extent and grade of the lesion, the resistance of the patient, the degree of preparation, and the thoughtfulness and experience of the surgeon. The principal causes of operative mortality are peritonitis and shock. In the best hands the five year survivals are over 50 per cent.

SUMMARY

1. Delayed recognition is a high factor in the mortality of carcinoma of the colon and rectum.
2. The symptoms and diagnosis are discussed.
3. Proper surgical treatment of early cases involves a relatively low operative mortality and a prolonged survival period.
4. The most desirable surgical procedures for carcinomas in different locations of the colon and rectum are indicated.

14 Jones, T. E.: *Surg. Gyn. & Obstet.*, 62:415, February (2A), 1936.

15 Rankin, F. W.: *Amer. Jour. Surg.*, 24:759, June, 1934.

16 David, V. C.: *Surg. Gyn. & Obstet.*, 59:491, September, 1934.

17 Allen, A. W.: *J. A. M. A.*, 109:923, September 18, 1937.

ABSTRACT

"BENZEDRINE SULFATE" IN NARCOLEPSY

Ulrich (N. E. J. Med., 217:696, Oct. 28, 1937) makes a second report on the treatment of narcolepsy with "Benzedrine Sulfate" (benzyl methyl carbinamine sulfate). Some of his patients have now had continuous treatment for nearly two years.

Seven of the ten cases of narcolepsy were complicated by cataplexy. All had complete or marked relief on administration of benzedrine sulfate in doses varying from 10 to 60 mg. a day, the average daily dose being 25 mg. In only one case was there an apparent tolerance developed. Cataplectic symptoms were particularly benefited, and did not reappear even after withdrawal of therapy.

No evidence of permanent deleterious effects or habit formation was found. Slight rise in blood pressure and basal metabolic rate was produced in some instances, but these effects were transitory. Anorexia and momentary discomfort were prevented by reducing the dose or changing the time of administration.

Two patients who suffered from obesity had an 11% loss of weight with benzedrine sulfate in doses of 20 to 30 mg. a day. This effect was not observed in patients of normal weight.

Ephedrine was tried in three cases of narcolepsy, but was found to be of slight or no benefit. Dibenzyl carbinamine, given to four patients, failed to relieve narcoleptic symptoms and produced gastro-intestinal reactions, especially in large doses.

The author concludes that benzedrine sulfate provides the only satisfactory treatment for narcolepsy, but cautions against unsupervised use.

PROTAMINE ZINC INSULIN*

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Indianapolis

The introduction of protamine insulin by Hagedorn and Krarup was unquestionably the greatest advancement in the treatment of diabetes since the discovery of insulin by Banting and Best in 1922. These Danish investigators were the first to successfully employ a "slow acting" insulin. Many attempts had previously been made to retard the rate of absorption and to prolong the activity of insulin injections, but each of these efforts proved unsatisfactory or impractical in one way or another when given a thorough clinical trial. Krarup's¹ report on the original work with protamine insulin is well written, covers a large series of clinical observations, and is conclusive evidence of the value of this insulin compound in the management of certain types of diabetic patients.

Regular insulin in the last few years has become a highly purified product which seldom produces local reactions at the site of injection, but which is very quickly absorbed from the tissues and has an intensive and short-lived action. Frequently repeated injections have, therefore, become necessary in many cases in order to bring about a satisfactory control of the diabetic condition. Juvenile diabetics and the severe adult cases were oftentimes required to take from three to six injections of insulin in a period of twenty-four hours. With these frequent injections, many of the patients were still showing marked fluctuations in their blood sugar curves and satisfactory control of the diabetes was oftentimes impossible for more than twelve to sixteen hours in a day.

During the past few years several attempts have been made to retard the action of insulin. Suspensions of insulin in oil were not satisfactory. The rate of absorption varied greatly and there was considerable local reaction at the site of injection. The same statements hold true for insulin in magnesium sulphate solution. Epinephrin added to insulin was tried later with the hope that the former agent would cause a local capillary constriction and in this way retard the absorption rate and prolong the insulin action. This procedure did not prove of value by clinical trial, because of the extreme variability in absorption and action time. Several other compounds of insulin also failed to give satisfactory results. Since all these other attempts had failed to retard insulin action, physicians were greatly pleased to confirm for themselves the true worth of Hagedorn and Krarup's discovery.

* Presented before the Section on Medicine of the Indiana State Medical Association at French Lick, October 5, 1937.

1 Krarup, N. B.: Clinical Investigations into the action of Protamine Insulin. *G. E. C. Gad*, Copenhagen, 1935.

The regular insulin of today begins to be absorbed in about fifteen minutes after injection and completely spends its effect in from three to six hours. Protamine insulin may not be absorbed for from two to three hours, but the insulin action may continue for from twelve to fifteen hours. The later development of protamine zinc insulin gave us a still slower acting preparation which begins to be absorbed in from two to four hours and has a continuous insulin action for a period of from eighteen to seventy-two hours.

Protamine zinc insulin is indicated primarily in those cases (1) which cannot be satisfactorily controlled with regular insulin; (2) which require numerous injections of insulin throughout the twenty-four hour period; (3) in juvenile or severe adult cases in which midnight or early morning doses of insulin are indicated to prevent exceptionally high fasting blood sugars, and in some of those cases which show considerable wastage of sugar in the night specimens of urine; (4) in patients who are insulin sensitive and present frequent and severe reactions with regular insulin; (5) in patients with coronary heart disease; (6) in patients who have not done well clinically with regular insulin, and lastly, (7) in mild cases in which frequent injections are impossible, due to the fact that some other member of the family must give these patients their insulin. This is particularly true in patients who because of cataracts, retinitis, or other visual disturbances are unable to use the hypodermic syringe.

A brief discussion of each of these groups might prove of value at this time.

GROUP 1. It is a common experience to all who treat diabetics that at times it is almost impossible to obtain a satisfactory balancing of diet and regular insulin. The total food quotation, with the arrangement of the calories in different quantities at the various meals, and different adjustments of the insulin may not prevent extreme fluctuations in the blood sugar level throughout the waking hours. Hyperglycemia, or a mild insulin shock, often may occur one or more times in the course of twelve to eighteen hours. In these cases protamine zinc insulin frequently "flattens out" the blood sugar curve.

GROUP 2. Cases which previously required one or more doses of regular insulin during the night, in an attempt to prevent marked glycosuria and extremely high fasting blood sugars, can in most instances be perfectly controlled with protamine zinc insulin alone, or in combination with regular insulin. Patients appreciate this omission of the night dose of insulin more than any other factor in the management of their diabetes.

GROUP 3. Two years ago eight out of every ten of our juvenile diabetics were compelled to take insulin at least once during the night and oftentimes the second or third dose was necessary. Now not a single patient takes insulin between suppertime and breakfast. It is only rarely that we see high fasting blood sugars. In fact the patients

now present their lowest blood sugars at this time of day, just as we would expect to find them in normal individuals. The patients now awaken feeling refreshed, hungry, and quite ready to take up their duties for the day.

GROUP 4. Protamine zinc insulin has done much to help the insulin sensitive patient. We refer to those individuals who with careful attention to diet and a constant insulin dosage were prone to insulin reactions of varying degrees of severity one or more times a day. These patients formerly lived in constant dread of "reactions." Attempts to regulate their activities would oftentimes not free them from their unpleasant symptoms. Most of these people seem to do well on protamine insulin. They require fewer injections, do not experience reactions, take higher diets and are happier and appear much better clinically.

GROUP 5. Diabetic patients with coronary disease are frequently encountered and it has been thought that low blood sugars in these elderly patients might cause anginal pain, or perhaps even be a factor in the production of coronary thrombosis. Personally we have never seen angina or coronary thrombosis which we believed to have been due to a hypoglycemic reaction, and we have observed some extremely low blood sugars in these arteriosclerotic patients. Anginal pain has been common in the past, but it was just as frequently observed when the blood sugar level was high as when it was below normal. With the use of protamine zinc insulin we still see patients with anginal pain, but in the last two years we have not observed a single patient with coronary thrombosis while taking this new type of insulin. Just what this means I do not know. It may be coincidental, and several of these cases may present themselves in the very near future.* Incidentally we have not had a death from apoplexy in any patient using protamine zinc insulin. This also is rather unusual, as these two factors are the common cause of death in most of our elderly diabetics. These remarks concerning these two conditions may both prove to be wrong in the course of the next few weeks. Only two of our patients have developed acidosis while using protamine zinc insulin. This seems unusual when we note that we now have 217 cases on protamine and over half of them have been using it for a period of more than one year, and many of them have taken it for a period of almost two years.

GROUP 6. Protamine zinc insulin occasionally does much to bring diabetic patients under good control who previously did not do well with regular insulin. We have observed this to be true in cases in which we least expected it to occur. We are at the present time unable to determine in advance just which of the cases will respond most satisfactorily to this new type of treatment.

* Since this paper was presented we have had one death from coronary thrombosis in a female, aged 70, who had been taking 18 units of protamine insulin once daily before breakfast.

Occasionally some of the mild cases who require very little regular insulin may not do as well as one would expect with the protamine preparations. For example, patients taking regular insulin in a dosage of 10 units before breakfast and eight units before supper may be well controlled with the old type of insulin and will not respond satisfactorily to as much as 25 to 40 units of protamine insulin given in a single dose. These cases, however, are quite rare. At the present time we feel that a clinical trial is the only way to determine which cases are suitable or unsatisfactory for protamine zinc insulin therapy. It would appear that about 76 per cent of the patients do better on the protamine zinc insulin.

GROUP 7. Protamine zinc insulin is of great value in many of the milder cases taking only 20 to 40 units of regular insulin in two or three injections per day. Here one dose of protamine will in most cases give excellent results. In patients with visual disturbances this insulin has proved a great blessing, as they have very little difficulty in arranging for someone to give them their morning injection of protamine. Most all diabetics were formerly disturbed by the frequent injections which were necessary of the regular insulin, and now many thousands of these people, in addition to many new cases, are taking protamine insulin because of the fact that only one injection is necessary in the course of a day.

Protamine zinc insulin has made less difficult the handling of many of the complications of diabetes. This has been especially true in the management of the surgical cases. Here we find that a constant dose of the protamine insulin can be given each morning and that only sufficient regular insulin need be administered to take care of the glucose solutions given intravenously. These patients have less nausea and vomiting, seldom develop acidosis, and are more quickly adjusted to their temporary diets. Their wounds heal more quickly and cleanly than previously. Most cases now go through their surgery without hyperglycemia or glycosuria. Patients with infections and gangrene appear to do better and spend less time in the hospital when receiving protamine zinc insulin. Several patients with diabetic neuritis have appeared to us to have recovered more quickly than when using regular insulin.

Protamine zinc insulin, because of its slow action, was formerly thought not to be of value in the treatment of diabetic acidosis or coma. Wilder² and his associates, however, have published several reports concerning the use of protamine zinc insulin in conjunction with regular insulin in the treatment of these conditions. They believe that their cases recover more quickly and with much less regular insulin than when the old type of insulin alone was employed. We have been able to

confirm this observation in two of our cases. Rabinowitch³ has recently reported four cases in which protamine zinc insulin alone was used in the treatment of acidosis or pre-comatose states and in which infection was also a serious factor. He gave rather large doses of protamine zinc insulin and noted a marked lowering of the blood sugar level in a period of from one and one-half to four hours. No carbon-dioxide plasma figures or any clinical data were given on these cases. It would appear that the same result might have been obtained in less time with even smaller doses of regular insulin. It is a well known fact that in a large dose of protamine zinc insulin some free insulin is present and is liberated quickly from the site of injection. The larger the dose of protamine the greater percentage of free insulin present. This may account for the rather rapid action of this type of insulin which was observed in the cases noted above. Regular insulin at the present time gives most gratifying results in the treatment of acidosis and coma, and we see no reason why one should attempt to treat these conditions with protamine zinc insulin alone.

We have observed ten cases in which we were unable to obtain as good results with protamine zinc insulin as we did with regular insulin alone. This has occurred mostly in young children who were extremely active or in those patients who could not, for one reason or another, follow regular or constant diets. In these individuals reactions were prone to occur during the night and were the most objectionable feature to this type of treatment. Rearrangement of the diet and the addition of regular insulin, with a subsequent reduction in the amount of protamine zinc insulin, would at times fail to give us the proper balancing necessary to prevent this hypoglycemic shock. It is quite likely that some of these patients have been unable to store sufficient glycogen in their muscles and liver to antidote the continuous action of the protamine zinc insulin.

The reactions which occur following the use of protamine zinc insulin are somewhat different from those observed following the use of regular insulin. The blood sugar drops so gradually that the usual symptoms of tremor, sweating, nervousness and hunger may not be observed. The patients may complain of lassitude, extreme fatigability, headache and sometimes nausea and vomiting. When the reactions occur during the night there may be restlessness, insomnia and nightmare with the patients oftentimes screaming out in their sleep. There frequently is disorientation on awakening, and there may be considerable mental agitation after the patient has been aroused. These reactions are at times recurrent in nature so that after the patient has once received glucose, either by mouth or intravenously, the same set of symptoms may occur within the course

² Kepler, E. J., Ingham, D. W., and Crisler, G. R.: Protamine Insulin as an Adjunct to the Treatment of Diabetic Acidosis and Coma, *Proc. Staff Meet. Mayo Clinic*, 1937, XII, 171-176.

³ Rabinowitch, I. M., Fowler, A. S., Bensley, E. H.: The Use of Protamine Zinc Insulin in Diabetic Coma, *Canadian Med. Ass'n. Jour.* Vol. 37, P. 105-112.

of another two or three hours. For this reason it is best to give quite a *large* dose of glucose in order to prevent their repetition. It is well to give these patients some type of food containing a moderate amount of carbohydrate each night before retiring in order to prevent these nocturnal reactions. We give a few crackers and a small amount of milk, or a small orange, or a small glass of orange juice at bedtime. The most common and distressing symptom of which the patients have complained has been headache. Headache may be present on arising and is relieved by the taking of food, but may recur a few hours after each meal. Reduction in the insulin dosage, or an increase in the diet, quickly overcomes these symptoms.

There does not appear to be any set rule for determining the dosage of protamine zinc insulin. In the milder cases requiring 20 to 40 units of regular insulin per day one can usually make an immediate transfer from the regular to the new type of insulin. It is best in the beginning to give the patients about 30% more protamine in a single dose than they were accustomed to taking in their combined dosage of regular insulin. For example, if the patient has been using 30 units of regular insulin per day, it is well to start him on 40 or 45 units of protamine before the morning meal. These patients gain in tolerance rapidly, so that in a week or ten days the dose may be reduced by 5 or 10 units. In another period of from two to four weeks it may again be necessary to reduce this dosage. We have observed

that after continued usage of protamine zinc insulin many cases can be controlled on as little as 30% to 50% of the units of the protamine zinc insulin as they previously required when receiving the regular insulin. This is especially true after they have been on protamine insulin for a period of three to six months. In the more severe diabetics who are taking large and frequent doses of regular insulin, the transfer from the old insulin to the protamine zinc insulin had best be made rather gradually. It is customary for us to take about seven days in order to make this transfer. There is a gradual reduction in the amount of regular insulin before each meal and a substitution of 2 to 5 units more of the protamine insulin each day for a period of six to ten days. One can finally carry the patient along on either a combination of regular and protamine before breakfast, or on the protamine insulin alone. It might prove to be extremely hazardous in children to make a sudden transfer from regular to protamine insulin, because it is often four or five days before the protamine appears to become effective. In this length of time severe juvenile diabetics might develop a severe acidosis or even coma. A gradual reduction in and finally the elimination of the noonday dose of regular insulin should be attempted first. One can then gradually reduce and later discontinue the supper dose of regular insulin, so that in the end very good results are obtained with the combination of regular and protamine insulin before the morning meal. The regular insulin takes care

Figure 1

COMPARISON OF CASES

Decade	1	2	3	4	5	6	7	8	Total
Number of Cases	5	18	27	24	19	34	38	5	170
Average No. Injections									
On Regular Insulin	3.2	3.5	2.8	2.7	2.6	2.3	2.3	2.0	2.6
On Protamine Insulin	2.6	2.9	1.9	1.8	2.0	1.3	1.2	1.6	1.9
Average No. Units									
On Regular Insulin	31.5	38.7	37.0	30.0	29.4	24.7	23.2	28.6	31.6
On Protamine Insulin	27.8	54.6	33.1	32.2	30.6	22.2	21.1	25.8	30.9
Average Carbohydrate Gain In Grams	30.0	14.3	28.8	12.8	13.2	19.0	21.7	10.0	18.7

Figure 2

DISTRIBUTION OF CASES

Decade	1	2	3	4	5	6	7	8	Total
Number of Cases	5	18	27	24	19	34	38	5	170
Protamine Insulin Only	0	2	12	12	11	25	32	3	97
Protamine Insulin With									
1 Dose Regular Insulin	3	0	4	4	0	5	3	1	20
2 Doses Regular Insulin	1	13	10	7	4	3	3	1	42
3 Doses Regular Insulin	1	1	1	0	3	1	0	0	7
Regular Insulin With									
2 Doses Protamine	0	2	0	1	1	0	0	0	4
Results									
Good	3	11	20	19	14	30	29	4	130
Fair	2	4	4	3	3	2	7	1	26
Poor	0	3	3	2	2	0	0	0	10
Not Determined	0	0	0	0	0	2	2	0	4

of the food ingested at breakfast and the protamine insulin then becomes effective in a few hours, so that it prevents a rise in the blood sugar after lunch and the evening meal. The only way in which a definite dosage can be determined is by clinical trial in each individual case.

The diets we have employed in the past have been arranged with equally divided meals. When protamine zinc insulin is used, however, it may be best to give a smaller breakfast and noonday meal, with a fairly large evening meal. If the blood sugars are prone to run low in the morning we reverse this order and give the larger meal at breakfast. No set rule can be given here as the absorption rate of the protamine insulin appears to vary greatly, as does the rate of the digestive processes in different individuals. It is also quite likely that the physical activity of the patient has much to do with the time at which the peak action of this insulin occurs. The arrangement of the diet, like the insulin dosage, must be varied according to the requirements of each individual patient.

The patients receiving protamine zinc insulin appear to fall in three different groups:

First—Those requiring regular and protamine zinc insulin in the morning with additional regular insulin at noon or supper, or both. This we have observed to be necessary in many of the younger children and in the extremely severe adult cases.

Second—Those requiring regular and protamine zinc insulin in the morning only. This group includes the moderately severe juvenile cases and a few of the adult cases.

Third—Those requiring protamine zinc insulin alone in the morning. This comprises the milder cases and most all of the patients past forty-five years of age. It would appear that about 57% of the cases fall in this group. (Figures 1 and 2.)

CONCLUSIONS

Protamine zinc insulin has proved to be of great value in the management of most of our diabetic patients. We have observed:

1. A reduction in the frequency of insulin injections.

2. Elimination of all night doses of insulin.

3. A gain in sugar tolerance.

4. General clinical improvement as shown by gain in weight, strength, and increasing ability to carry out daily activities.

5. A reduction in the complications of the disease, such as infections, acidosis, gangrene, and possibly a reduction in the frequency of occurrence of coronary occlusion and apoplexy. There is great hope on the part of every clinician that the constant control of the blood sugar level will do much to prevent the future development of the arteriosclerotic complications of diabetes.

603 HUME MANSUR BUILDING

DISCUSSION

HARVEY L. MURDOCK, M.D. (Fort Wayne): Formerly Dr. Joslin's diet was 100 grams of carbohydrate with plain insulin, but with protamine insulin it has been extended to 150 grams. The discovery of protamine insulin is a very wonderful thing because most patients appreciate the fact that it necessitates the use of the needle only once a day instead of several times.

The one thing Dr. Warvel did not speak of very clearly regards exercise and the question of comparison of the two insulins. It is in those patients who exercise vigorously that you cannot always control the diabetes with protamine insulin alone. If your patient is an athlete who plays football, for instance, it is well to do one of two things: either allow him to eat a little more carbohydrate or add some extra regular insulin, when using regular insulin.

Another question comes up. If you start on protamine insulin you will still find sugar in the urine for a day or so and you will want to increase the amount of protamine insulin. It is wise to be rather cautious and increase the dosage slowly, even though you have some glycosuria. You can arrive at the dosage without increasing the amount given if you regulate the diet.

Another thing about regular insulin and protamine insulin is that sometime or other during the twenty-four hours the patient has an uncontrolled diabetes. The disease is one which probably causes some degenerative process in the body. Many of these patients die of coronary disease. Certainly if you are controlling your diabetes with protamine and the blood sugar level is constant throughout the twenty-four hours, it might be that we are curing diabetes rather than treating it.

Another point which is quite striking is the benefit which protamine insulin has on the hypertensive and arteriosclerotic coronary case. Most of your old patients have coronary disease. There is some reversal of the T wave and I am wondering whether it is possible to cure coronary disease associated with diabetes with protamine insulin.

Concerning the diet which should be carried on with protamine insulin, according to Joslin, it should be divided into fifths, one-fifth taken for breakfast, two-fifths for lunch and two-fifths for dinner. There are some men who reserve some carbohydrate to be taken later in the evening because, since protamine insulin works throughout the twenty-four hours, it is necessary that the patient have some form of carbohydrate to take care of the action of insulin during the night. In the morning, in most of your cases on regular insulin, there is some sugar in the urine, while with protamine that seems to be the time of day when there is the least amount in the urine, and that is another point which is important.

Dr. Warvel has pointed out that there are a great many more people willing to take protamine

insulin than were willing to take regular insulin. Dr. Joslin has spoken of the fact that protamine insulin has increased the life expectancy of the youngster with diabetes.

FRANK GREEN, JR., M.D. (Rushville): I find it very difficult to discuss a paper as interesting, complete and informing as this paper. It seems impossible for me to add anything to it. There are only a few points which I would like to emphasize.

With the use of protamine zinc insulin in surgical cases, I believe that the patients are much better handled. Also, with the regular insulin there was great fluctuation in the blood sugar level; that has been controlled by the protamine insulin and a more level blood sugar may be maintained. The fact that with protamine insulin there would be fewer injections to take would be very important to me if I had to take any form of insulin. One other interesting thing is that the reactions following protamine insulin occur during the night, thus differing from reactions following regular insulin. The most interesting thing to me is that sometimes the severity of the diabetes is lessened with the use of protamine insulin.

ABSTRACT

RAW APPLE DIET IN DIARRHEA

Street (*Southern Medicine and Surgery*, November, 1937) discusses "The Raw Apple Diet in Diarrhea." He cites the use of "apple days" by Heisler, in 1928, and gives some of the conclusions of Moro, of Heidelberg, who a year later tried out the Heisler treatment with unusual success. He reported most excellent results in all but one of twenty-two cases of acute, non-infectious diarrhea, but one case requiring a second "apple day" treatment. Moro believed that the chief beneficial effect derived from this treatment was due to the large mass of swellable substance ingested during the course of the treatment and that this spongy mass cleans the intestinal tract mechanically and that it also absorbed toxic materials during its passage.

Since then much has been written on the subject, chiefly by German and French investigators, most of whom are agreed that the treatment is quite efficacious. Minot, in particular, is quite enthusiastic over his results, declaring that but one or two days' time finds the stools returned to a normal consistency. Certain of the American writers recently have joined in the recommendation of the treatment and it now is quite generally practiced.

The author credits the pectin in the apple with much of the good therapeutic effect, together with the now accepted fact that the apple pulp has to do with the mechanical effects of the treatment. He also refers to a combination of agar with the pectin, asserting that in many cases the therapeutic action is greatly enhanced. His method of treatment is the inhibition of one to four tablespoonfuls of grated, ripe apple—grated with the skin on—every two hours, day and night, for two days. He adds ripe bananas for those children who do not like apples. Save for tea and water, nothing else is given orally, though the parenteral use of fluids may be necessary to maintain the water balance.

THIS ANESTHETIC BUSINESS*

FLOYD T. ROMBERGER, M.D.
Lafayette

This anesthetic business is many-sided. Yet, just as a precious stone frequently may lie uncomely and uncouth, when crude and uncut, an object of relatively little value, so too this anesthetic business may remain undeveloped and utterly incapable of rendering its fullest service to those in surgical need. But, accurately faceted, highly polished, and appropriately set in logical surroundings, scientific anesthesia may be made to sparkle with that certain brilliance which will give it due rank and proper place among our other gems of medical and surgical specialism.

This anesthetic business has many intricate and involved problems, all of which reasonably may be divided into those of (a) national, (b) state, and (c) local import. This thesis, for the nonce, expects to delineate only some of those factors which are of local significance because, just as the health and vigor of our state and national bodies of organized medicine in general depend directly and absolutely upon the vitality and the harmonic urge of the basic local unit, the county medical society, so, indeed, does it behoove us, as anesthetists, unceasingly to strive for local betterment, for local acceptance and establishment, and for local indispensability in our field, each in his own community. This much is certain.

Successful establishment of strictly medical anesthesia in any given community depends on a large number of closely related factors. The principle of these are: (a) A thorough knowledge, real proficiency, and an extended experience in the scientific administration of the reasonably well known and effective agents on the part of the medical anesthetist; (b) Educational efforts continuously put forth both within and without the profession, so that there always will exist within any given community an appreciative demand for the highest type of professional service; (c) The ability of the medical anesthetist to correlate factors *a* and *b* and thus accurately to fit the most adaptable anesthetic agent to the surgical problem immediately at hand.

Stated conversely, yet from a slightly different and supplemental angle, failure to establish medical anesthesia in any given community results most likely from (a) general apathy on the part of the profession and thus a lessened appreciation of the necessity on the part of the laity, (b) pathetic lack of available medical personnel, knowledge, equipment, and experience, and (c) disinterest and disregard because of low professional achievements or because of short-sighted economic pressure, both from above and below, which thus engenders an inability to earn a reasonable livelihood.

* Presented before the Section on Anesthesia of the Indiana State Medical Association at the French Lick session, October 5, 1937.

Manifestly it is altogether impossible to discuss in detail in any one thesis all of these points. However, since a thorough knowledge of the possibilities in administering the many and various agents at our command, alone or in combination, is of primary and utmost importance, it is entirely worthwhile to review and summarize what they are and how they may be applied. Too little known and too lightly regarded are these facts by many recognized medical anesthetists.

The idea for this discussion did not come altogether out of thin air. It is an honest attempt to answer some of the many questions frequently asked both by the neophyte and by some of even greater experience. It is a result of many personal contacts and an intimate acquaintance with many communities both within and without our state. From all this came the thought that many anesthetists do not realize how wide is the field, i. e., how many and how various are the adaptations and combinations of anesthetic agents. Surely such a review must be worthwhile. In this day and age, it is not enough to know and be proficient with but one or two or three methods. True, perhaps, every surgical problem thus can be met. But how?

It is not presumed or implied or even intended that all and every one of the agents and combinations available should be used in any one or every community. Local acceptance and appreciation must be the guide. However, it is suggested most definitely that, with this vast array before the medical anesthetist, surely there must fall upon him the problem of meeting and solving those anesthetic dilemmas which present themselves in the many and various surgical procedures. He so can do.

DI-ETHYL ETHER (C₂H₅)₂O

An extended experience in the several and various adaptations of di-ethyl ether anesthesia is an absolutely necessary minimum for the mental armamentarium of every anesthetist, anywhere and under all conditions. Too little is this fact appreciated. Proficiency in ether anesthesia most certainly is and quite probably ever will remain the basic foundation upon which the superstructure of anesthetic judgment in comparative values must be erected. Therefore, it is pertinent to review briefly and emphasize the many ways in which di-ethyl ether may be administered, both solely and in combination.

1. Orally (ingestion); this is uncommon.
2. Intravenously, which is rare.
3. Rectally, usually only for analgesia or for basal narcosis.
4. By inhalation. This, naturally, is the most extended field; as

(a) On an open mask or cone.

(b) By oral, pharyngeal, or endotracheal insufflation with air or with oxygen.

(c) By a closed technique using Bennett, Flagg, or Stanford inhaler; i. e., gas induction, air or oxygen vaporization for maintenance.

(d) By the closed method through modern gas-oxygen apparatus, (1) without or (2) with a circle-filter, gas-oxygen or oxygen for vaporization. This latter is best and most economical even with excess oxygen.

(e) By surface or bubble vaporization to synergize with and potentiate nitrous oxide-oxygen, ethylene-oxygen, or cyclopropane-oxygen anesthesia.

(f) May be combined with alcohol and chloroform (1 part alcohol, 2 parts chloroform, 3 parts ether) and used as in a, b, c, d, and e.

(g) May be combined with ethyl chloride and chloroform (anesthol—essentially 1 part ethyl chloride, 2 parts chloroform, and 3 parts ether) and used as in a, b, c, d, and e.

(h) May be combined with di-vinyl ether (optimum mixture 1 part di-vinyl ether 3 parts di-ethyl ether) and used as in a, b, c, d, and e.

5. Oral, intravenous, rectal, and inhalation ether anesthesia may be combined one with the other. Or they may be used supplemental to and in conjunction with the intravenous, rectal, or oral administration of the barbiturates. Or they may be employed along with local, regional, sacral and trans-sacral, and with spinal.

Thus it may be seen that the variety of ways in which ether may be used is infinite. One must hesitate to name the number. The skill, the judgment, the imagination, and the finesse of the anesthetist is the only limitation to the field.

DI-VINYL ETHER (C₂H₃)₂O

Vinethene differs essentially from di-ethyl ether in that (a) it is more volatile (boils at 83° F. compared with di-ethyl at 93° F.), and hence it is more rapid in induction and markedly earlier in recovery, depth for depth, (b) it is slightly less irritating to bronchial mucosa, though the unmorphinized patient will salivate (drool) slightly, and (c) it lacks the respiratory stimulation of di-ethyl ether. Thus it has its good points, also its drawbacks.

Vinethene may be used in all respects as is di-ethyl ether, with the probable, present restriction that for very long administration there seems little justification or warrant and no or few advantages. Referring to classification 4 under di-ethyl ether, vinethene apparently finds its field, at present, as in 4a, on an open mask for relatively short procedures; as in 4d, vinethene-oxygen by the closed system; as in 4e, to potentiate the anesthesia of nitrous oxide, ethylene, or cyclopropane; as in 4i, used as an adjunctive in combination with di-ethyl ether; and as is mentioned under item 5.

ETHYL CHLORIDE C₂H₅CL

Ethyl chloride is extremely volatile. It boils at 12.5° C. and does not freeze at -29° C. Hence it is exceedingly rapid in its induction, and unless the anesthesia therefrom is unduly prolonged, the recovery is very prompt.

1. Theoretically its best and safest administration would be by the warmed, moistened, and oxygenated vapor. This method is still open to development.

2. Most useful applications are: (a) on an open mask as an induction for ether anesthesia, and (b) on an open mask for short surgical or dental procedures. Conservatism dictates a five or six minute limit. Beyond that, it is safer and better to use other agents.

3. May be combined with ether and chloroform (anesthol) and used as indicated under di-ethyl ether under 4g.

CHLOROFORM CHCl_3

Chloroform is much maligned, unjustly, because of mal-administration. Much abused. Little understood. Boils at 61 C. Generally considered inflammable but non-explosive. Administration:

1. By drop method on open mask—very thin mesh gauze—air or oxygen is the antidote. Never should be pushed to extreme lengths or depths.

2. Semi-closed chloroform vapor using air or oxygen, preferably latter.

3. In combination with (a) ether; (b) alcohol and ether; and (c) ethyl chloride and ether; used as indicated under di-ethyl ether in 4a, 4b, 4c, 4f, and 4g.

4. May be used to potentiate (with a most cautious minimum) an ethylene-oxygen, a nitrous oxide-oxygen, or a cyclopropane-oxygen anesthesia. Extreme care must be taken with this method.

NITROUS OXIDE N_2O

This agent has enjoyed wide preference for many years, despite drawbacks. When used without preliminary morphinization, basal narcosis, or adjunctives, generally it is considered a suboxygenation-type anesthesia. In expert hands it is very responsive and very safe. When used in combination or synergistic-type anesthetics it has a markedly enlarged field, exceedingly pleasant from the patient's viewpoint. Chiefly employed, always with oxygen:

1. As induction agent for ether.
2. As the main or sole agent, with or without circle filter and carbon dioxide absorption.
3. In conjunctive, combined, or synergistic-type anesthesia, it may be potentiated:
 - (a) By preliminary morphine or basal anesthesia (avertin, barbiturates)
 - (b) By ethylene.
 - (c) By cyclopropane.
 - (d) By di-ethyl ether.
 - (e) By di-vinyl ether.
 - (f) By ethyl chloride.
 - (g) By chloroform.
 - (h) By a, c, e mixtures.
 - (i) By chloroform-ether mixtures.
 - (j) By anesthol.
 - (k) By combinations of above.
 - (l) By local.
 - (m) By regional.
 - (n) By spinal.

4. Conversely, it may be used as an adjunctive or mere sleep producing agent in local, regional, and spinal.

ETHYLENE C_2H_4

Ethylene always is given with oxygen and largely for the same indications but not quite so pleasantly as is nitrous oxide-oxygen. Ethylene has more potential for relaxation. There is less suboxygenation, usually none. Ethylene may be used in any and all of the infinite variety of techniques listed under nitrous oxide-oxygen.

CYCLOPROPANE C_3H_6

This is an exceedingly powerful hydrocarbon gas, effective in very small volumes along with greatly excess oxygen. It is more pleasant in reasonable mixtures than is ethylene. It is far more potent in induction and in relaxation than are either nitrous oxide or ethylene. This agent, as is quite probably true of any anesthetic drug, but perhaps more so, never should be pushed to its full possibilities of potential, i.e., it is far safer and more rational and more duly conservative if it is used in combinations and sequences. Cyclopropane may be employed in any and all of the techniques mentioned under nitrous oxide and under ethylene.

In conclusion, it may be stated conservatively that with the seven commonly used, time-tried anesthetic agents here briefly discussed, it is possible to administer thousands of various combinations. Now, when you supplement this array with the rectal, oral, and intravenous use of the barbiturates, then add to that local, regional, and spinal anesthesia, then, indeed, must it be quite manifest that more than mere ordinary skill and judgment can and may and must be exercised to render the full and highest type of anesthetic service in every community.

This is as it should be.

521 LAFAYETTE LIFE BLDG.

DISCUSSION

C. F. RAGAN, M. D. (Terre Haute): Dr. Romberger speaks of various kinds of anesthetics and the way he uses them. He emphasizes the combination of different anesthetics. Anyone who has spent time with him will realize that he knows what he is saying when he talks about combinations of various anesthetics, because Dr. Romberger does combine his anesthetics. I have gotten some very valuable points from him which have enabled me to make combinations and get much better results.

I consider ether our basic anesthetic. I am giving more ether now than in several years past, especially since we use the closed method. I like ether with the closed method machine because it seems to reduce the nausea and other post-operative complications. Before using the closed method machine, I had great comfort with the ethyl chloride induction; now I never use it except in a tonsil

or other case where one has to have an open face. Several years ago I tried ethyl chloride on a special mask for prolonged operations. I soon learned that was a mistake. I do not think it is a very safe anesthetic for continued use through an operation, but it is mighty good for induction.

We should not forget about nitrous oxide even though we have cyclopropane. We can give nitrous oxide in a great many cases with far less nausea resulting than with the use of cyclopropane. I spent three or four mornings last year with Dr. Romberger learning cyclopropane from him and I like his method. He does not use such an unsteady method of feeding as other anesthetists. He gives it in a steady small feeding, not shutting it off and on. Cyclopropane is a valuable adjunct to other anesthetics, especially ether. It can be used where the patient will have a sudden relapse in the midst of an ether anesthesia. It takes but a little cyclopropane to relax the patient and the operation can proceed.

JOHN S. LUNDY, M. D. (Rochester Minn.): In connection with ethyl chloride, will Dr. Romberger tell us whether he recommends that it be given by the drop method or whether it should be sprayed on the mask? I have very definite ideas on that point. I enjoyed his paper very much. It is something I have been harping on for quite a while. I, too, tried to give this method of anesthesia a name, to see if I could stir any interest in it, and called it "balanced anesthesia." My ideas on a combination of anesthetics is about like that toward a balanced diet; patients do well on a small amount of several things, but they are apt to gorge themselves on one thing and become sick.

It seems to me that we very frequently forget that the worst thing we can attempt to do with an anesthetic agent or method is to try to use it routinely.

I think one should give ethyl chloride by the drop method. People who have had the greatest experience with ethyl chloride have learned after all these years that there is a greater degree of safety when the dose is measured by drops than when it is sprayed on. You can't tell how much you are giving with the spray.

LILLIAN MUELLER, M. D. (Indianapolis): I would like to ask Dr. Romberger whether he thinks he gets more nausea and vomiting following cyclopropane than from the other gases.

CHARLES N. COMBS, M. D. (Terre Haute): I enjoyed Dr. Romberger's paper because he takes words from the English dictionary and does with them what the kaleidoscope does with little bits of colored glass. He seems to be as versatile in combining words as he is in combining anesthetic agents. I am usually so engaged with his pungent phraseology that I forget what he is talking about. He always brings a fresh slant to a subject.

I used to use chloroform a great deal but I have discontinued it in favor of vinethene. I just can't endure the sight of freshly ingested food.

When they bring in these street accidents just after they have had a lot of chili and have gone out automobile riding, I don't know of anything I can use for a short operation that will safeguard my tender feelings like the use of vinethene, because it never produces any nausea in those patients. Again, I don't know of any agent that will give you such immediate orientation after stopping the anesthetic as vinethene, and that is something when you want a patient to go out of the hospital right away.

DR. ROMBERGER (closing): This paper was more favorably received than I had hoped because, when we get up and talk of inhalation anesthesia, some people think we are old fashioned. All these anesthetic agents, except nitrous oxide, which we use in inhalation methods, if you go into the chemistry of them, are CH compounds. When you are dealing with these CH compounds, I really don't believe in my own heart that it makes much difference to the patient which one you are giving to attain the desired end, or even what combination of them you use to get the desired end; and that desired end is, as Dr. Geider says, a nice, smooth induction from the patient's viewpoint and enough relaxation for the surgeon to do his work. Rather, it is far more important to employ the agent rightly. I, personally, don't like to pour more water in the wash tub than is needed to do the washing or more anesthetic into an individual than is necessary to do the work and then have the patient get awake as soon as possible, so that we can at once evaluate the surgical and anesthetic shock. I don't believe it is so much a matter of agents as a matter of how to use those agents and how watchfully you give them. For instance, some doctors in our community don't like to use deep ether because they say the patient sleeps so long afterward. Even for them, under proper technique, this can be avoided.

There is one thing I find in students and internes. They don't administer ether and watch the signs closely enough. They want a slide rule as to how much or what percentage to give. It is reasonable that what you want to do is to give enough to get a certain effect, then hold that effect as long as is needed to do the surgery, then let the patient recover; after all, that is what we are after, to have the patient recover. I agree with Dr. Lundy about this "no routine" business. 'Way back when, in 1922 or 1923, in Columbus, I believe, Dr. Lundy and I went into quite a huddle on this problem. I was trying to coin a phrase for synergistic anesthetics, and he was trying to coin one for combining anesthetics. We were both going to the same place, but by a different road, as the Jewish and Catholic gentlemen in "Abie's Irish Rose." We should give as small a quantity as is necessary. I am partial to the phrase "quantum sufficiens." I like to use that phrase, and I teach it right along to my students. I say, give Q.S., a sufficient quantity to produce an effect, then hold that effect as long as it is needed for the

surgical problem. If we don't meet that surgical problem, there is no sense in giving the anesthetic. Toward the close, withdraw the anesthetic as rapidly as is reasonable and right.

Answering Dr. Mueller, when I first administered cyclopropane-oxygen, and used it alone and without any combinations, I was getting more nausea and vomiting than with nitrous oxide-oxygen. I don't think the nausea at any time was of any marked degree; i.e., to the extent that the patient really complained very bitterly about it. Later on, when I began to use cyclopropane in combination with other agents, I used a lesser amount of cyclopropane, and then still later, within recent months, when I used other light combinations and still smaller quantities of cyclopropane, I didn't have much nausea and vomiting. Nausea and vomiting is an individual variation that is absolutely unpredictable, as far as I can see. You may drag a man in off the street with a broken leg. He has had a full dinner. You give him an ether anesthetic on an open mask. He may not vomit, will wake up easily and feel good. The next patient, under identical circumstances, may be entirely different. As he is coming out, even before he leaves the operating room, he may vomit a bucket-full. These factors often are unpredictable and unexplainable, perhaps.

I believe I can safely say that in our community (and I am not speaking only of my own work, especially, because I have an associate, and a great many physicians living in our city have graduated from and studied in our hospitals and are giving ether anesthetics on a part time basis, influenced more or less perhaps by some of my teachings), our incidence of postoperative nausea and vomiting is much less than it used to be. I think this is because we are not completely overwhelming our patients with narcotic and anesthetic agents.

The obvious answer to Dr. Lundy's question about the drop and the spray method, in an ethyl chloride induction or ethyl chloride maintenance anesthesia, say for operations lasting from five up to eight minutes, to use his own statement, there is no such thing as routine. I believe that in average hands, in a fellow who is trying to learn ethyl chloride, and with a mask of average thickness, until you are better acquainted with the technique and signs, you better had begin with the drop. I start most of my patients with one or two or three drops, to get them accustomed to the smell, and then a few drops more until they are disoriented, then I usually spray. I spray pretty rapidly until I see the on-coming respiratory signs. I have my eyes and ears constantly on that patient, alertly watching him, using the respiration largely as a guide.

I think Kemp, of Vancouver, B. C., has done the most outstanding work on status lymphaticus. There has been more of that research done than many of us realize. I think that when patients die under ethyl chloride and under ether anesthet-

ics, I believe that they die from anesthetic shock, from pushing the anesthetic too fast, particularly in a thymic patient.

I advise all my interns that they must learn how to give an ethyl chloride and ether sequence on an open mask, for we must give anesthetics which are in demand in the community in which we live, and ether is the basic educational agent. At first, interns stand by and watch me manage these cases. Sometimes they say, "I am afraid to handle them with that system." I reply, "You ought to be until you have given a large number." My final answer to all this is to drop slowly, then with increased rapidity until the respirations become automatic and rhythmic.

You often will see an abdomen opened and an appendix pulled up that looks sub-acute or pretty near normal; then, when the surgeon exposes the head of the cecum and perhaps a little strip of the lower ileum along with it, he says, "Look at those glands." I never could understand what that adenopathy meant until I talked with Kemp four or five years ago. He published a most excellent paper on status lymphaticus, and he believes that the glandular enlargement which you see in these youngsters from eight to twelve or fourteen years old is an evidence of a state approaching status lymphaticus, if not actually so. I feel that I can pick these youngsters out a little bit better than I used to. I won't say I am a hundred per cent perfect, but they are youngsters fairly well nourished. They look as though they are pretty vigorous, but they don't have quite a naturally healthy color, and the ones I have particularly in mind seem to have thin or very fine quality hair, most usually blondish in type or rather decidedly blonde. When I see a kiddie like that come to me, of course they come to me a lot of times as they do to you, that is, I have never seen them before, I always examine those patients most closely. I try to evaluate them, regardless of what I give in the way of an anesthetic agent. I even walk around the table and size them up, perhaps just to see what the normal color is, for example, so I may later use that as a guide. Now, if you have a youngster coming up for a tonsillectomy, and see a kind of fairly plump child, as though it might be pretty well nourished, and has blondish hair but exceedingly fine in texture, watch that kiddie most closely and give a very careful anesthesia without any anesthetic shock.

I have had a few patients in whom the doctors were suspicious of a thymic condition. They went as far as to use x-ray in diagnosis, and they said to me, "This child has an enlarged thymus, and the tonsils are sticking out into his throat. Besides, I have to get those adenoids out. I want you to give the anesthetic." Believe me, I take a good look at that youngster, and I consider him most carefully. Yet I don't hesitate to use ethyl chloride. I have given it a large number of times to very small children less than a year old, but I administer it very cautiously.

SYMPOSIUM: THE MIDDLE EAR AND MASTOID*

1. THE ACUTE MIDDLE EAR

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During the past several decades, volumes have been written about infections of the middle ear, and many of them were simply repetition. It is manifestly impossible to cover the subject in a short time, but I want to emphasize a few points which are important in our study of middle ear infections.

With but few exceptions, acute infections of the middle ear result from an extension by way of the eustachian tube of a pre-existing nasopharyngeal infection. This extension was formerly thought to be one of direct mechanical continuity, but recent careful studies have produced evidence that tends to show that some infections are carried by way of the mucosal blood and lymph channels of the eustachian tube. The probabilities are that the infection may extend by either of the two routes or by a combination of the two, the route depending to a great extent upon the virulence and type of organism, the resistance of the patient, and the anatomical configuration of the nasopharynx and its appendices.

In the past it has been customary to divide acute infections of the middle ear into acute catarrhal and acute purulent otitis media. Last year Cassidy, in his translation of Portmann's book on *Otitis Media*, stated that this division is no longer tenable. Catarrhal otitis media involves a mechanical non-purulent exudate in the middle ear resulting from tubal closure, while purulent otitis media, no matter what the stage, is always an infection. There is much truth in this statement. We all have seen cases of so-called catarrhal otitis media progress, even while under treatment, to a typical purulent infection, and the explanation has been that the serous exudate formed an excellent culture media for secondary invaders. Certainly all cases of acute inflammation of the middle ear, when the etiological factor is infectious in origin, even though the exudate be apparently serous in nature, may safely be treated as a potential purulent infection.

Anatomical differences between the temporal bone of the infant and that of the adult play an important role in the causation and progress of the disease. The eustachian tube in the infant is shorter, more horizontal, and relatively larger and the nasopharyngeal opening is lower than in the adult, thus making it much easier for an infection to extend through the tube to the middle ear. It is in infants, too, that vomiting and regurgitation of food may prove to be an etiological factor. In the infant, the middle ear cavity, the aditus, and the mastoid antrum are filled with embryonic meso-

dermal tissue. This interferes with drainage, especially when the infection has already involved the mastoid antrum, and explains many cases where myringotomy fails to clear up the infection. The relatively large size of the structure, lined with mucous membrane, encourages absorption and produces the toxic systemic symptoms which are much more prevalent in the infant than in the adult.

The petro-squamosal suture in the infant passes directly through the posterior wall of the mastoid antrum and is patulous. Because of this fact, a swelling back of the auricle, occurring at the onset of otitis media in the infant has the same clinical significance as a bulging of the drum membrane. Myringotomy with drainage through the middle ear cavity will often eliminate the necessity of a post-auricular drainage. The petro-squamosal suture, in passing through the tegmen, affords a direct intracranial route for extension of the infection from the middle ear cavity. Prodromal signs of meningitis often clear up with establishment of drainage by myringotomy.

We are all agreed that in children and adults recurrent attacks of otitis media demand of the otologist a careful examination and correction of any pathology found in the nose and throat. In infants, recurrent otitis media calls for just as careful an examination and treatment. The pharyngeal tonsil, because of its location in the relatively smaller nasopharynx of the infant, presents a distinct mechanical barrier to proper drainage and ventilation, both of the eustachian tube and of the nasal cavities. The deep fissures which separate the lobes contain a mucoid secretion which serves as an excellent culture medium for bacterial growth. This residual infection, associated as it is with mechanical obstruction, will often produce a sinusitis or otitis media or both. A vicious circle is formed: one reinfects the other. The infant referred because of a recurrent middle ear infection will usually be found to have, in addition to the otitis media, a relatively large mass of adenoids and acute or sub-acute sinusitis. Careful and thorough removal of the lymphoid tissue in the nasopharynx together with adequate treatment of the sinus condition frequently will clear up these cases. If the antra contain pus, antral windows should be made at the time of adenoidectomy. Certainly repeated myringotomy without further treatment is not advisable since deafness will inevitably result even though the infant escapes antrotomy or intracranial complications later.

In the adult, as well as in the infant, careful study will show a close etiological relationship between nasal sinus disease and acute infection of the middle ear. Cullom¹, in 1934, stated that in his cases of middle ear infection, it was found that at least 85% had an associated antrum infection on

* Symposium presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the French Lick session, October 5, 1937.

¹ Cullom, M. M.: The Association of Sinus Disease and Middle Ear Infection, *J.A.M.A.* Vol. 103, No. 22, page 1695.

the same side. While the percentage may seem high, there is no question but that careful nasopharyngoscopic and x-ray examination of the sinuses in all cases of acute otitis media often disclose an associated sinus involvement. The mucosa of the eustachian tube is similar in its structure to that of the nose and sinuses, and it is evident that inflammatory reaction of the nasal mucosa can easily extend to the middle ear by way of the eustachian tube. It is also self-evident that even though both conditions be the result of the same infection (for example, an acute exanthematous disease) the nasal infection, as long as it is present, will continue to keep up an inflammatory reaction, not alone of the nose but of the nasopharynx and eustachian tube as well. Improvement in the acute infection of the middle ear depends to a great extent upon restoration of drainage and ventilation through the eustachian tube and this will not occur while the acute tubal congestion is present or continues as a result of acute nasal infection. If the best results are to be obtained, treatment must be directed not only to the ear but also to the involved nasal sinus infection.

With the introduction of sulfanilamide as a specific drug in the treatment of infections resulting from the streptococcus and pneumococcus organisms, the taking of smears and cultures at the time of myringotomy promises to have as great a value in determining the line of treatment as it formerly did in evaluating the prognosis of a case. Page², at the Manhattan Eye, Ear and Throat Hospital, in myringotomies done in 8,361 consecutive middle ear infections, found fifteen organisms as etiological factors. In approximately 30% the hemolytic streptococcus was found; in 14% the pneumococcus type III; in 14% the staphylococcus aureus; in 6% the staphylococcus hemolyticus, and the remainder were divided among staphylococcus albus, streptococcus viridans, pneumococcus type IV, bacillus coli, Friedlander bacillus, and others. The pneumococcus type III, however, with less than half as many cases, was the infecting organism in over one-half as many mastoidectomies. These statistics once more bring to our attention the fact that while the streptococcus is our greatest etiological factor the pneumococcus type III is our most dangerous organism, because of its insidiousness and its tendency to produce complications. The prognosis in any case involving type III pneumococcus must be guarded.

Sulfanilamide promises to be a marked addition to our armamentarium. It is, however, distinctly a specific, and will prove of value only in those cases in which smears and cultures show a susceptible organism. Experience in its use in the treatment of middle ear infection is still too limited to draw definite conclusions, but it has proved its value in similar infections elsewhere in the body. A word of warning must be given. The drug is

powerful and we know little of its action in the body. Already cases of agranulocytosis, toxic optic neuritis, hemolytic anemia, methemoglobinemia, and sulphemoglobinemia are being reported. Its use should be confined either to a hospital or a home where daily laboratory tests can be made.

Treatment is fairly well standardized. In the earlier and milder stages of infection, hydroscopic drops are of some value, by removing the accumulating fluid from within the middle ear cavity and by relieving otalgia. Either heat or cold may be used, depending upon which gives the greater relief from pain. In addition to specific treatment directed to any sinus condition which may exist, the use of ephedrine drops or sprays to shrink the swollen mucous membrane, saline irrigations to remove the viscous secretions of the nasopharynx, and warm dry air to deplete the mucosa, are all of benefit. It must always be remembered that we are trying to restore the normal function of the ciliated epithelium of the nasopharynx and eustachian tube, and that solutions of too great strength, or too energetically administered, will prove irritating.

When the infection reaches a stage in which there is formation of exudate in the middle ear sufficient to cause pressure, myringotomy should be performed. In the past, early myringotomy has been advised as a prophylactic measure, even though only a slight serous discharge was present. We have all performed a paracentesis with only a drop or two of serous discharge visible at the time and found that several days later there developed a definite purulent discharge as a result of secondary invasion brought in through the external ear canal. The advisability of myringotomy which is a surgical procedure, with its potential attendant dangers, is a question that each otologist must evaluate at the time, judging each case itself through the light of his present knowledge and experience. Myringotomy when indicated should never be delayed; neither should it be done promiscuously.

Following myringotomy, the ear canal must be kept free of pus in order to promote drainage. In the hands of a physician or a competent nurse, removal by cotton applicators is undoubtedly preferable as it lessens the tendency to excoriations produced by irrigations. The average mother, however, will be more successful with irrigations, repeated as often as necessary. If the drum membrane shows any tendency to close, instillations of alcohol will tend to separate the edges and enlarge the opening.

Mastoiditis is by far the most frequent complication of acute otitis media, and localization of the infection to the middle ear is extremely difficult. Whenever an acute otitis media has been present for more than forty-eight hours, we are safe in assuming that the mucous membrane of the mastoid cells is partaking of the same general reaction as that present in the middle ear cavity. We are then dealing with an acute otitis media with mas-

² Page, John R.: Bacteriology of Acute Infections of Middle Ear and Mastoid, *Arch. Otol.* 20:447, October 1934.

toiditis, and the potential complications become those associated with the acute infection of the mastoid cells. It is well to recall, however, that intracranial complications may develop directly from an infection of the middle ear, either through a patent fistulous tract, or by way of the blood or lymphatic vessels. Intracranial complications as a direct extension from the middle ear are more prone to develop in infants because of the lack of ossification, but they may occur in adults as well.

With our attention directed so strongly to the ear, we, as otologists, should not forget the patient himself. The resistance of the patient is an important factor in the successful combating of this disease, as it is in all diseases. The lowered vitality, whether or not it is due to a coexistent exanthematous infection, an associated systemic disease such as nephritis, diabetes or similar trouble, or is simply a malnutrition, demands appropriate treatment. The internist or pediatrician, as the case may be, should be called in for consultation early. Full cooperation with the two may be the decisive factor between success or failure. 24 N. W. FOURTH ST.

2. THE ROENTGENOLOGY OF THE MASTOID

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There is no specialty in medicine in which roentgenology can be of more material assistance than in otolaryngology. This is especially true in the diagnosis of pathology in the mastoid process. Recent improvements in radiographic equipment and technique have done much to make this possible. In addition to this, much new and valuable information has been obtained on the normal and pathological mastoid process by various investigators.

In reviewing a large series of radiographs of mastoids, one is impressed with the marked symmetry of construction of the right and left mastoids in the same individual. An asymmetry of construction occurs in only a small percentage of cases.

Anatomically, two general types of mastoid processes are found: (a) the diploic, or non-cellular; (b) the pneumatic, or cellular.

Fortunately, 80% will be of the pneumatic type. Pneumatization occurs at a very early age. In fact, the mastoid antrum is the only pneumatic space present in the new-born and is fully developed before the rudimentary mastoid can be demonstrated. A failure in development in pneumatization has been attributed by most investigators to an early otitic infection.

In the pneumatic mastoid, the cell elements differ in size which makes it possible to subdivide the given groups into types of large cellular, medium cellular, fine cellular and mixed structure. The most frequently observed is the large cellular type. In the diploic mastoid, bony detail is lacking in air space; occasionally there are a few cells in

the region of the antrum but usually this is devoid of any cellular structure and the antrum itself is situated so deeply that it casts no shadow.

When one considers the pathological changes which occur in mastoiditis, one can readily understand how in a pneumatic structure like the mastoid process the various changes can be definitely delineated on the radiograph. During the first stage of inflammation where we have an engorgement of the blood vessels of the mucous membrane lining the cell wall there will be a distinct haziness of the infected mastoid as compared with the normal mastoid. Later with the diapedesis of the red blood cell, the migration of the white blood cell, and the transudation of the blood serum from the blood vessel wall, there will be a distinct cloudiness of the mastoid process. As the infection progresses, demineralization of bone occurs and there will be a definite diminution in density of the infected mastoid. Still later with a breaking down of the cell walls there will be a coalescence of many cells into one large cell. If, however, the infection is arrested before a coalescent mastoiditis occurs, and healing develops, the cell walls will be replaced by dense bone, in many instances considerably more dense than the normal bone.

This, in brief, is a picture of what will be presented by the roentgen ray. The progress of the infection can be followed by means of a series of radiographs over a period of days.

Only in the exceptional case will the sigmoidal sinus be visualized as it passes through the mastoid process. However, as the infection progresses, the walls of the sinus become distinctly visualized. This is due to the contrast in densities of the infected mastoid process itself and the blood vessel which may be likened to an air tube, as blood is transparent to the ray. Later, however, as demineralization of bone and a coalescence of cells occur, the walls of the sigmoidal sinus will again be poorly delineated. If, however, the pathological process is arrested and healing occurs, the condensation of bone will make the groove of the sinus particularly well visualized. The relationship of the sigmoidal sinus to an area in which there is a breaking down of cells should be of considerable importance to the surgeon.

Cholesteatoma can be recognized on the radiograph by an area of decreased density. The edges of the cavity will be more dense than the surrounding bone because the process is inflammatory and as a result an osteitis is present. This is important in differentiating from a bone cyst in which the margins will be clean cut and have a punched-out appearance.

An emissary vein is found in approximately one-third of the examinations. To know that an emissary vein is present may save many minutes during the operation in checking a bleeding blood vessel. Cheatle, who published a comprehensive article on the emissary veins, believes the presence of an emissary vein is of surgical importance be-

cause if sepsis extends through the occipital or external veins, or if the lateral sinus empties entirely through the mastoid vein, it would be necessary to ligate and excise the external jugular in the same way as the internal jugular is dealt with in infected lateral sinus thrombosis. He believes that attention should be given to the emissary vein in all cases in which an infected lateral sinus is suggested. This same conclusion was arrived at by Kraus and Workner who studied the anatomy together with the roentgenological findings in a large series of cases.

Within recent years considerable attention has been given to the petrous apex of the temporal bone. Most investigators have shown that a well pneumatized mastoid process usually presents a pneumatized petrosal pyramid. Diploic and sclerotic bone and that of the mixed type accompany similar findings in the mastoid process. However, an analysis of two hundred mastoid processes and of the petrous apex by Myerson et al¹ revealed that there were 38% pneumatized mastoid processes and only 11% pneumatized petrous pyramids. Kopetzky,² therefore, advocates as a routine procedure a radiograph of the petrous pyramid in every case of mastoiditis to determine the presence or absence of pneumatization. Later, if symptoms suggesting petrositis develop, to know whether the petrous apex is pneumatized or diploic would be one of the determining factors in the diagnosis of petrositis. Since the infection is more a sequel than a complication of mastoiditis, the film made at this time of the mastoid examination would, therefore, be of greater value than a film made when petrositis was suspected.

As an aid in the diagnosis of meningitis developing as the result of otitic infection, Husik³ connects the type of bone as presented by the radiograph with tendencies toward intracranial involvement. He believes sclerosed bone is often the underlying structure which when an infection of the middle ear supervenes most often gives an intracranial lesion as a sequela. True, many mucosal infections lead to meningitis, but with the newer methods of diagnosis, with the ability of the roentgenologist to report the presence of osteoporosis, reliance need not be placed entirely on the patient's subjective symptoms, and there is little reason for relying upon laboratory findings as altogether indications for operation.

Infections of the accessory sinuses are so frequently associated with mastoiditis that a radiograph of the accessory sinuses should also be done at the time of the examination of the mastoids. It has been our observation that approximately one-third of all patients with mastoiditis will have

an associated infection in the accessory sinuses. This is particularly true in children.

CONCLUSIONS

The roentgenologist should be of great assistance to the surgeon in the diagnosis of mastoid disease. Proper teamwork between the roentgenologist and the surgeon is necessary because the clinical and physical findings should also be considered in the interpretations of the radiographic findings.

The radiographic examination should reveal the following important diagnostic aids:

- (1) The anatomical type of mastoid present (pneumatic or diploic).
- (2) The presence and extent of the infection in the mastoid.
- (3) The presence of emissary veins, cholesteatoma, etc.
- (4) The anatomical type of petrous apex present (pneumatic or diploic).
- (5) The presence or absence of infection in the accessory sinuses.

3. THE INDICATIONS FOR AND THE MASTOID OPERATION

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In the course of acute otitis media there is usually a logical sequence in the development of symptoms and signs indicating that surgical mastoiditis is present. There is no sharp line of differentiation between the two stages of this inflammatory process, for mastoiditis is simply a continuation in the cycle. Rehearsal of the usual signs and symptoms will not be necessary, but there are some variations in them that may indicate an operation, and which deserve mention.

The diagnosis can ordinarily be approached with deliberation, for it is rarely an emergency, unless alarming symptoms arise to indicate the approach of disastrous complications. A surgical mastoid consists of a coalescence of the mastoid cells into an abscess cavity, a condition rarely occurring before the second or third week of otitis media. Before this period there occurs a protective reaction within the mastoid designed to aid in the immunization against the invading organisms.

The appearance of the patient and his reaction to the infection must be considered. Contrast the obviously acutely ill person with high persistent fever, as seen in streptococcal involvement, with the apparently well patient, even without pain or fever, but with grave suppurating osteitis, as seen in the pneumococcus type III mastoiditis.

Another factor that must be evaluated in each individual case is the age of the patient. In infants and young children periosteal edema may occur early, due to thin cortex and patulous sutures, but in elderly people, extensive destruction of cell walls and dural or sinus plates may occur

1 Myerson, Mervin C. et al: Anatomic Studies of the Petrous Portion of the Temporal Bone. *Arch Oto-Laryng.* 20:2, 1934.

2 Kopetzky, Samuel J.: The Otologic Problem Presented by Suppuration of the Petrous Pyramid. *Arch Oto-Laryng.* 16:1, 1932.

3 Husik, David N.: Sclerotic Mastoiditis and Intracranial Complications. *Laryngoscope* 42:519, 1932.

with less clinical evidence. Infants, however, because of absent or limited pneumatization, can not have the type of mastoiditis as found in adults, but may have earlier intracranial involvement.

Differences in anatomical formation, as the presence or absence of sclerosis, will alter the picture, as will variabilities in lateral sinus position, type of mastoid cell, relation of point of greatest bone destruction to important structures, influence of previous attacks, existing constitutional disease and bacteriology.

The complex tract of cells is variable and not always infected in precisely the same way. The extremes are represented by massive coalescent involvement with obvious diagnosis, and, on the other extreme, by instances in which a few cells are the seat of a local empyema, especially witnessed at the tip. It is obviously impossible to give one set of symptoms as typical.

It is the interplay of the factors of anatomical structure, resistance offered by the tissues, both local and general, and the nature and virulence of invading organisms that determine the course of the disease, and their relative importance varies from case to case.

In the completely cellular mastoid, infection arrives at the surface of the cortex quickly with decompressing subperiosteal abscess formation. This is the least dangerous as the symptoms are early and the breaking through usually external. However, the complex structure allows greater area of absorption for toxins. A true diploic mastoid is more rare, but offers greater resistance. More commonly it is diploic, with stray groups of pneumatic cells, allowing the diploic cells to be easily overlooked. The sclerotic type, the most dangerous, masks the signs of inflammation, has the danger of internal penetration and favors chronic suppuration. In general, the less cellular the mastoid, the fewer the signs and the more dependent is one on evidence of the general condition of the patient and the state of the middle ear. The higher the resistance, the more likely is localized collection (empyema) rather than widespread bone destruction. The more virulent the infection, the more rapid is the bone destruction, the less the local reaction and the more pronounced the effects on the patient's general health. (Watkyn-Thomas¹).

If the culture of the aural discharge shows pure staphylococcus, in contra-distinction to hemolytic streptococcus, it is best to temporize. If pneumococci are found, one must be on the lookout for early meningeal signs. If the hemolytic streptococcus is found, especially in the presence of contagion, prompt action is usually necessary, even in spite of questionable x-ray findings. In this instance daily hemoglobin reduction will be of special significance.

As already stated, then, surgical mastoiditis is rarely indicated by any one sign or symptom, unless it is late in the process, and the sign is of obvious nature, as for example some massive complication such as facial paralysis late in acute otitis media, meningitis, or lateral sinus thrombosis. Swelling of the eyelids on the affected side has been shown by Ruskin to be due to congestion of the venous circulation over the petrous portion of the temporal bone. The aural discharge may be bloody.

Should the initial pain, after being relieved by establishment of aural discharge, return later, perhaps paralleled by increase in the temperature curve, surgical mastoid involvement seems probable. The nature of the aural discharge seems more indicative, since continuation of profuse purulent discharge means that a larger area than the middle ear is responsible for its formation. Commonly the discharge is abundant and after removal wells up again in the depth of the meatus, rapidly obscuring the drum. The quantity secreted in so short a time is conclusive evidence that there is a reservoir within the mastoid process.

In the appearance of the drum, significance may be attached to two possibilities, both usually indicating surgical mastoiditis. A red bulging drum at the time when it should be subsiding, or a nipple-shaped perforation, especially in children, in the third and fourth week of acute otitis media, are both very suggestive.

Locally at the mastoid process an early sign of involvement is either mastoid tenderness (when correctly elicited) or slight thickening of the soft tissue over the process, discovered by simultaneous palpation of both sides. Tenderness is present in the normal mastoid process if pressure is applied over its posterior surface. The pressure should be applied over the anterior surface, directly inward and posteriorly.

Though mention has been made of a definite syndrome, in the instance of silent mastoiditis, difficulty may arise, chiefly in the paucity of definite indications. There is an insidious, progressive destruction of the mastoid process with or without otorrhea, slight or no pain, afebrile course and only the appearance of systemic or intracranial complications brings about its discovery. We place in this category the type III pneumococcus infection, well known to have an apparently quiet course until serious complications appear. But other organisms may cause a similar type of silent mastoiditis. Why the process is "silent" is not well explained but may include variations in mastoid structure, for example thick cortex in the small-celled mastoid, and the possibility of anesthetic power of locally produced toxins, illustrated by the painless tuberculous ear involvement. Hence, in this type of mastoiditis special care is needed to recognize it. Evaluation of the symptoms, no matter how slight, is important. We can not rely on any single criterion, though

¹ Watkyn, Thomas and Yates. Text. *Principles and Practice of Otolaryngology*. Wm. Wood & Co. 1933.

special attention to progressive loss of hearing, hemicrania, insomnia, and the deep narrowing of the external canal with apparent shortening of the meatus together with drum changes will be indicative. Since bony lesions usually do not have a high leukocyte count, as contrasted with soft part infection, here a Schilling count will be of some aid, for steady rise in band cells points to a progressive invasive infection.

Attempts to link otogenic sepsis with alimentary intoxication into a disease entity or syndrome are not as acceptable now as in former years. Especially is this true of the so-called masked or silent mastoiditis which is supposed to be present in these malnourished infants, and for which antrotomy is recommended. Today, the general trend is toward mastoidectomy in febrile nutritional cases where there is ample anatomic and clinical evidence to substantiate the claim that there is infection within the mastoid, the profound systemic effect of which in infants is unquestionable. However, the diagnosis of otitis in severe diarrhea may be made difficult by absence of swelling and hyperemia, as the consequence of persistent dehydration. Actually it has been proved that in nurseries the spread of enteritis has come through contamination and that the mastoiditis was secondary, or at least late in the course of the disease, thus being entirely an incidental and not a primary cause. (Lederer²).

Likewise in infants, when otologic indications are present, persistent pneumonia, or pyuria may be cleared up by antrotomy. Mention must be made, however, that this does not refer to pneumonic otitis media, which is only a local manifestation of lobar pneumonia. In this the pathology is confined to the middle ear, as edema rather than inflammation of the middle ear mucous membrane, and spontaneous resolution takes place simultaneously with recovery from the pneumonia.

The correct decision as to the opportune time to perform a mastoidectomy lessens the possibility of needless operation, reduces the number of complications and paves the way for smooth convalescence. The least favorable time to operate is during the time of acute invasion of the mastoid. Protective barriers have not been thrown out to wall off the infection, and operation during this period shows more reaction, convalescence is less smooth, the wound does not heal so well, and complications are more frequent. In early operation, the average duration of time from operation to complete healing and a dry ear is about ten weeks, while in later operation complete healing and a dry ear may be obtained in three weeks.

Intracranial symptoms should be looked for and excluded before operation. The suspicion of the presence of a complication may lead to its discovery at operation when otherwise it might be overlooked.

The operation described by Schwartze seems adequate to accomplish the twofold purpose of mastoidectomy, that is to eradicate infection and to restore the hearing. A description of the operation here is unnecessary. To eradicate the infection it is necessary to remove all the cells, provide adequate drainage, and prevent reinfection.

Once the cortex is removed the best landmark in the mastoid process is the lateral sinus, which determines the extent of pneumatization, and also the arrangement of the cells in relation to it. Once the sinus plate is exposed, and its relations to the cortex of the squama posterosuperiorly, to the cortex of the mastoid laterally, to the digastric crest inferiorly, and to the posterior wall of the canal anteriorly, are determined, the possible cellular groups become known, and their presence can be searched for. These anatomic cell groups as classified by Meltzer³, are three: (1) The superior group, the anterior portion of which contains the zygomatic cells, and the posterior portion of which consists of the angle or petrosal cells. These are the important cells extending posteriorly from the antrum to where the lateral sinus joins the cortex of the squama. (2) The second group, which he calls the antero-inferior group, contains the cells of the posterior wall of the canal and tip, and the retrofacial cells. (3) The third group, the mesio-posterior, make up the greater mass of cells, and lie in front of, directly over and posterior to the lateral sinus. These posterior or marginal cells often escape detection in a mastoid exenteration.

It is the variations in position of the lateral sinus that determine where cells may develop if the lateral sinus allows sufficient space.

In systematic removal of these cells very few will escape detection. Especially in the pneumatic mastoid, a large tip cell may be present, developed as a cell system separate from the remainder of the mastoid cells, as demonstrated by Almour. It originates in the hypotympanum, extends back under the facial canal and down to the mastoid tip. This explains the occasional presence of an isolated empyema at the tip, the remaining cells of the mastoid being intact. As Shambaugh remarks, the peripheral mastoid cells have a tendency to channel formation, radiating to the antrum, interspersed with pneumatic spaces. This accounts for the isolated suppuration sometimes found.

The local causes for failure of the mastoid wound to heal include primarily, of course, incomplete operation. The reparative properties of the body are often generous in eradicating undiscovered infected foci, but the well done operation will not be dependent upon this for uneventful healing. A less frequent cause, according to Almour⁴, is

³ Meltzer, Philip E.: *Archives Otolaryngology*, 19-326, 1934.

⁴ Almour, R.: *N. Y. State J. Med.* 36: 1097, Aug. 1, 1936.

² Lederer, Francis L.: *Annals of Otolaryngology, Rhinology and Laryngology*. 46:261-264, 1937.

the excessive widening of the tympanic antrum during the operation. Curettage of the middle ear is not necessary for an ultimately dry ear, as the discharge is primarily from the mastoid, and ceases after exenteration. Following curettage, in place of having the normal lining tissue in and about the antrum, the post-operative cavity is lined by scar tissue of low resistance and subject to frequent reinfection from the middle ear. Too, he mentions that excessive smoothing of the operative cavity destroys the small granulations and blood vessels needed for repair. This does not, however, preclude the complete uncapping of the cells. Furthermore, reinfection occurs from overlooked cells in the zygoma, and this is best prevented by previous x-ray study. Less frequently there occurs continued necrosis of the inner table with or without sequestration of spicules of bone, and finally, non-healing may result from continued suppuration of cells beyond the confines of the mastoid process, in the squama, around the jugular bulb, or in the petrous apex.

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DISCUSSION

JOSEPH D. HEITGER, M.D. (Louisville, Ky.): This symposium has covered everything fairly well, and there is little to discuss. In dealing with infections of the middle ear and mastoid, the most important thing to know is whether any complications exist, or whether they are in the process of development, and often roentgenograms give us no information regarding this. Serial roentgenograms may help but we must realize that their interpretation constitutes only one step in our critical investigation of our patients and positive roengen findings alone do not always constitute an indication for surgical intervention. Such findings become of greatest value when combined with adequate clinical interpretation of the course of the infection in the middle ear or mastoid. I would like to bring out one point in regard to one complication, namely, that of sinus thrombosis. Nielsen and Courville in the study of 106 consecutive cases of mastoiditis without intracranial extension made the interesting observation that the clinical syndrome of sinus thrombosis (chills, fever, sweats, leukocytosis) may be closely mimicked by mastoiditis alone, and that a meningeal reaction with every sign of meningitis except a positive culture of the cerebrospinal fluid may occur as a distant effect of uncomplicated mastoiditis; and that contralateral increase of the deep reflexes, Babinski sign, eyeground changes, nausea, and vomiting may appear without being indicative of anything more serious than inflammation of the mastoid cells and the extension of the inflammation from one mastoid cell to the other. Mind you, all these cases were simple acute cases. Whenever complications developed the cases were taken out of this study group. With this type of reasoning regarding the pathology in the mastoid they showed

very clearly that we should not be too hasty in making a diagnosis of sinus thrombosis, particularly in the type of case where there is extension of infection within the mastoid giving the clinical syndrome of sinus thrombosis.

J. K. LEASURE, M.D. (Indianapolis): There are a few questions that I would like to ask. First, in regard to the method of irrigating the ear. It is my experience that the mother can irrigate an ear better than she can wipe it.

In regard to x-rays, mentioned by Dr. Meyer, we can help if we will report to the roentgenologist what we find in each mastoid when we are through with it. Sometimes things are not as they have seen them, and the roentgenologist will not know unless we tell him.

In the matter of healing, how many of you have had any experience with intravenous or intramuscular injections of foreign protein or vaccines which stop the healing process and leave a fistula in the skin and mastoid area? I have found the same thing true with the use of sulfanilamide. What is the experience of others?

JOHN R. FRANK, M.D. (Valparaiso): In considering whether to do a myringotomy in an elderly person, you would not expect the drum to bulge in the presence of pus or fluid. If you wait for bulging before lancing, you probably will have mastoid complications. In persons over 60 the drum is sclerotic.

Regarding sulfanilamide, we still are in doubt as to whether that is a specific drug for streptococci, or whether it merely increases the person's resistance. In my experience, it tends to the latter, and is good in any infection.

If you use alcohol in the ear immediately or soon after the drum is lanced and raw, you will get marked pain, and the patient will resent and hate you afterward, particularly if the patient is a child. I have experimented with a great many things and find that alcohol and glycerine in equal parts, with four per cent phenol and four or five per cent benzocaine is a satisfactory antiseptic and causes very little pain. It may be colored, if you like.

E. E. HOLLAND, M.D. (Richmond): In regard to complications, I ran onto a case this past spring that I thought would be meningitis, but proved otherwise. A small boy was taken with violent pain in both ears. He immediately developed extreme photophobia, had a temperature of 105, there was a slightly positive Kernig sign, the x-ray showed both mastoids to be clear; the ear drums were red and bulging. I incised the drums, started moderate drainage, and in four or five days the symptoms had subsided. When I first saw the boy, I thought that mastoiditis and meningitis were impending.

MARCUS RAVDIN, M.D. (Evansville): I want to answer one point in regard to the formation of fistula. If you will take sterile bismuth paste and, when you are sure there is no more pus or infection, proved by smears or cultures taken from the wound, then fill the fistula with sterile bismuth paste, close it, and don't bother it any more, you will hear no more from it.

Sulfanilamide does not stimulate, it destroys the micro-organism. Beware of it. It sometimes destroys the white and red blood cells. Watch your step if you use it. If you have no technician to take frequent blood counts, leave sulfanilamide alone.

J. K. LEASURE, M.D. (Indianapolis): Have any of the other men had any experience in this matter of healing, when the healing seems to stop and leave a fistula?

So far as irrigation is concerned, I feel that all that is necessary is to keep the canal clean.

H. A. VAN OSDOL, M.D. (Indianapolis): We all have ideas about irrigation and drainage, but it is my opinion that the external auditory canal is the best drainage tube in the body, and if we can keep it protected by a bandage around the head, and let the drainage come out, our patients will get along very well. I never irrigate the canal unless the discharge is very thick and heavy and fails to come out.

A. F. CLEMENTS, M.D. (Evansville): I have had some experience with a dry mastoid cavity, usually following scarlet fever and as a complication of that disease. The books on pharmacology are rather modest about balsam of Peru, but when this balsam is placed in the dry wound, in my experience, it is of great value in encouraging formation of granulation tissue, thereby hastening the healing and correcting the dry condition.

As to whether or not it is good practice to irrigate a discharging ear, I think the trouble with or bad repute gained for this method is not in the irrigation but in the failure to stop drainage. The necessity for irrigation is soon over, but its continued use will frequently keep the middle ear draining. Use it, but stop as soon as possible, that is when the canal can be kept clean by swabs or gauze drain.

THIS IS THE MONTH
TO PAY
MEDICAL SOCIETY DUES
DELINQUENCY
BEGINS FEBRUARY FIRST

THE NEED OF A MENTAL HYGIENE PROGRAM FOR THE CHILDREN OF INDIANA*

Howard B. Mettel, M.D.

Exie E. Welsch, M.D.

Bureau of Maternal and Child Health
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Indianapolis

A state mental hygiene program for children offers not only direct service to an individual who is needing help, but also provides for a wide community service. This community service includes not only the study and the treatment of an individual, but also pulls together and correlates all community facilities toward a better individual and family relationship, improved economic conditions, and more adequate social standards. The ultimate goal of any mental hygiene program is grossly twofold: (1) study, treatment, and re-education, and (2) stimulating a community interest and sympathetic understanding of mental hygiene problems. Practically, these are inextricably interwoven and the doing of one demands a utilization of the resources of the others. So a broad, comprehensive understanding of one's goal and functioning is essential to maintain a perspective which is basic for useful service.

Since the turn of the century, and especially since the organization of the National Committee for Mental Hygiene in 1909, as stimulated and fostered by Clifford Beers, awareness, interest, and study of personality factors in mental illness, physical illness, sociological problems, criminology, and delinquency, is being seen more and more as the approach which leads to a more complete and adequate understanding of the "person," of the "individual as a mentally integrated unit." Mental hygiene aspects include not only preventive work with patients and groups, but also preventive work "in the sense of prevention of false thinking, misconception, misunderstanding, folklore and taboos, which make it difficult for the patient (or family) to accept help or to allow the physician to be of help."¹

It is an important function of the medical profession to interpret good mental hygiene principles to their patients and to the community, as well as to special groups with whom they work. In recent years courses in psychiatry, or "psychobiology," or "the physiology of the total person" (A. Meyer) have been rapidly becoming a requisite basic course in all medical school curricula, and this is so, since psychiatry has expanded to include not only the diagnosis and treatment of mentally ill patients, but also the study and treatment of

* This paper read by Dr. Exie E. Welsch, Director of Child Mental Hygiene Program, Bureau of Maternal and Child Health of the Indiana State Board of Health, before the Indiana State Advisory Health Council, at the Riley Hospital, November 17, 1937.

¹ E. G. Billings: Teaching Psychiatry in the Medical School General Hospital. J. A. M. A. Aug. 29, 1936. Vol. 107, pp. 635-639.

individuals as related to their social, economic, and cultural environments, attitudes toward everyday difficulties which are so easily transposed to physical complaints, personality reactions, and behavior deviations which occur quite within the limits of what may well be considered as "normal behavior."

The need for such a course and service has been felt in various quarters. In August of this year, these various quarters pooled their interests and facilities, and a working psychiatric unit was set up to organize and direct a mental hygiene program for children of the State of Indiana. This was done with the cooperation of the Indiana State Board of Health, the Indiana University School of Medicine, the Indiana State Medical Association, the Children's Division of the State Department of Public Welfare, and the State Department of Public Instruction. The Indiana State Board of Health has provided the child psychiatrist who directs the program. The psychiatrist's time is divided between the Children's Division and the Indiana University School of Medicine.

When working with the former, the Department of Public Welfare supplies the psychiatrist with a psychologist who has had special training in testing children, and in doing remedial work such as with reading and speech difficulties, and, especially trained social workers who supply environmental data, their own observations as to family relationships, and carry out certain social adjustments as advised by the psychiatrist.

A child psychiatrist is a person who is a medical graduate, and who has had training and experience in adult psychiatry and adult mental hygiene problems, as a foundation for, or background to, the study of the growth problems of children as evidenced in their behavior. It is essential that the director of a mental hygiene program or a child guidance unit be a medically trained person, for the study and evaluation of any piece of human behavior demands an understanding of the individual as to his physical status, intellectual endowment, and emotional make-up and reaction tendencies; and, how this individual reacts to, or is influenced by his environment. Information concerning the intellectual endowment and special abilities and disabilities of the patient is the special contribution of the psychologist; study of environmental factors is the offering of the social worker. With these at hand, the psychiatrist pulls together all available data, including physical status, his own study of the individual and family, then evaluates, diagnoses, and advises or treats on the basis of the constructive data with which he has to work.

The present set-up then is an especially healthy one since a medical group, specifically the Indiana State Board of Health, has taken the lead in providing a mental hygiene program. Additional soundness is seen in the close cooperative working with social service groups, public schools, and groups with community interests (teachers, P. T.

A., mothers' groups, courts, and various philanthropies).

A psychiatric service as a community program is being worked out with the Department of Public Welfare of Indiana. The psychiatrist and assisting psychologist spend time in several areas which already have a full-time well trained social worker. There areas are chosen because they are already partially self-supporting, and it is hoped that this additional service will stimulate local feeling so that the community will ultimately take over the total financial responsibility for a unit of its own, or else contribute more funds so that the service can be expanded. The functioning of such a clinic is to study the child, his parents (or foster parents), the environment, and then to treat the individual, arrange for a better school adjustment if that is indicated, improve environmental factors, and utilize facilities in the way of recreational centers, Y groups, Boy or Girl Scouts, young people's church groups, etc. This service is available to welfare cases, to the needs of the county health nurse, and to the needs of the local physicians of that community.

The other part of the program, which seems to be even more inclusive for ultimate service, is the psychiatric teaching program which is being worked out at the Riley Hospital in cooperation with Indiana University School of Medicine, especially in the pediatric department. This program, although still in its infancy, is being planned to include didactic lectures to students, clinical teaching, consultation services to the house staff, and an out-patient department.

As indicated earlier, the importance of the physician understanding emotion and personality implications in human illness as they are presented to him in everyday practice (it is estimated variously that from 35% to 75% is purely or largely psychiatric), and the handling of these with trained common sense and sober understanding is as essential part of medical training, for the old concept of "mental" on the one hand, and of "physical" on the other, and the two being at best only loosely and vaguely related, has given away to the more comprehensive concept of the patient or the person, as a mentally integrated unit whose physical, emotional, intellectual, and environmental reactions contribute to a totality which is the individual. With this sort of background, the physician has a broader and more complete type of training for treating his patients, and contributing to community welfare.

Clinical demonstrations accompany these lectures so that the student may have the opportunity of studying, and seeing how personality implications and psychobiological integrity work concretely.

Further teaching of a less formal sort, but equally as important, is carried out in the consultation service, wherein cases referred for psychiatric evaluation or treatment are discussed quite fully with the pediatricians and the interne

staff. Cases are discussed with the ward nurses to aid them in more intelligent observation and handling of various types of behavior problems.

An out-patient department is being established in which former in-patients may be followed along for observation and treatment over a period of time, and to which out-patients may be directly referred by other departments in the hospital. Occasional cases are referred from the juvenile court, and from the county welfare departments which need aid for their dependent children. Medical students and internes may attend this clinic at any time. Already this department is being used almost to the capacity of the present limited staff. When the clinic gets into full swing, perhaps a more complete staff will be available so that the clinic may be used more widely and completely. Detailed records of all cases seen are being kept, in order that they may in the future be used for research projects.

It is hoped that this department at the Riley Hospital may become an ever more integral part of this teaching center in which doctors as representative products of Indiana University teaching methods may learn a breadth and scope of medical functioning which will enhance and round out their practice of the healing art.

ABSTRACTS

LIGHT IN THE SCHOOLROOM

EDWARD JACKSON, Denver (*Journal A. M. A.*, Sept. 11, 1937), asserts that the bright joy of childhood comes to the child in the sunlight. If school could begin with two years of supervised play, in outdoor playgrounds, with full light, it would help to get the full cooperation of the child. Loss of child's hearty, interested cooperation is the first grave error of the educational system. It is a more serious error than has been appreciated. It has set up an opposition between natural desire and suggested tasks, between normal activity and purposeful occupation, between what one wants to do and what is expected of one. It sets up a conflict between study and health. Those who most need health sacrifice it for study. Those who most need opportunities of study throw them away to cultivate the natural desire for health and bodily vigor. Failure to recognize the child's inherited need and enjoyment of light outweighs in effect much labor on the curriculum and skill in pedagogy. More than all else, it lowers the child's standards of health as a main objective. The light standards of the children are the light standards of the human race, the light standards of savage men who hunted and fought and worked under the open sky. The only standards acceptable for the school are those of optimal vision—the highest visual acuity, the easiest and quickest vision, good light on a cloudy day and in the morning and evening. With the light meters of the present day, the light that falls on each desk and book can be measured in every part of the schoolroom. Doing this in some of the best lighted schoolrooms of Denver, it was found that the light at the bottom of the windows opening to the clear sky was from 100 to 200 foot-candles. On the tops of the row of desks nearest these windows it was from 40 to 50 foot-candles. On the desks farthest from the windows it was from 5 to 10-foot-candles, and on the blackboard smeared

with chalk, on which were written things for all the children to read, it was always less than 10 foot-candles; in some parts of the room the eyes had also to contend with glare of the reflections of the windows. Justice requires something more than good light in the schoolroom. But it cannot be done without adequate light for all the children. And this cannot be attained until teachers and parents and pupils understand what is good light and its great importance at all times. When all of these have mastered this essential, school authorities, school architects and school financiers still have to be educated to know that good lighting and justice are worth having in any community.

ENDOCRINE TREATMENT OF MENOPAUSAL PHENOMENA

J. P. PRATT and W. L. THOMAS, Detroit, (*Journal A. M. A.*, Dec. 4, 1937), observed 200 consecutive menopausal cases over a period of several months. Only 100 of the subjects returned often enough to justify tabulation. The 100 cases is a small number from which to draw conclusions but it is sufficient, however, to establish a trend. The symptoms attributed to the menopause are so diverse that it seems unreasonable to consider that all of them are due to ovarian failure alone. The average age of women in the series at the time of observation was 45.6 years. The average age at the onset of the symptoms was 43.5 years. Eleven of the patients had an artificial menopause. The average time that elapsed between the operation and the onset of the first symptoms of the artificial menopause was ten weeks. In general, the symptoms of the artificial menopause were more severe than were those of the natural menopause. The materials used for the relief of the menopausal symptoms were capsules containing theclol, phenobarbital or lactose, compressed tablets containing emmenin or lactose (but identical in appearance) and ampules of oil alone or theelin in oil. From 64.2 to 85.7 per cent of the patients who received drugs or placebos but who did not know which reported complete or partial relief, all the twenty-two patients who knew they were being given phenobarbital were either partially or completely relieved and eight of the twelve who were aware that they were given a bromide mixture experienced partial or complete relief from symptoms.

THE GONORRHEA PROBLEM IN THE UNITED STATES

According to R. A. VONDERLEHR and LIDA J. USILTON, Washington D. C. (*Journal A. M. A.*, Oct. 30, 1937), annually in the United States at least a million persons acquire gonorrhea. The incidence of gonorrhea is highest in cities of from 50,000 to 500,000 population, and lowest in metropolitan and rural areas. The mean age of acquiring the infection is 29 years for the white male, 24 years for the Negro male, and 24 years for the white female. The age of highest frequency of infection is several years younger in each instance. A fourth of the cases of gonorrhea occur in females, 86 per cent in the reproductive period of life. Thus, approximately 230,000 potential mothers in the United States acquire gonorrhea annually. There are constantly under observation and treatment 493,000 persons with gonorrhea in the United States. There is no substantial evidence that gonorrhea is on the decline in the United States. However, the medical corps of the armed forces of the United States has demonstrated that something can be done in the control of gonorrhea with the methods at present available. A few European countries have reported a decline in the number of cases of gonorrhea, although in no instance is it as marked as the downward trend for syphilis. The percentage of gonorrhea under treatment in public clinics decreases with the decrease in the density of population. Gonorrhea is much more prevalent than any other serious communicable disease.

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JANUARY, 1938

Editorials

SMOG

The November 29th release of the Bureau of Publicity of the Indiana State Medical Association, under the heading "Smog Sickness," is more than timely. In its brief comment on this important subject, attention is directed not only to the economic waste as the result of poor combustion of expensive fuel but to the ill effects on the population compelled daily to breathe this vitiated air. Economically speaking, the bulletin calls attention to the fact that more than two million dollars represent the annual cost of this poor firing of heating and steam plants, and that some 3,500,000 pounds of soot fall upon each square mile in the affected area during one year. All this does not take into account the economic loss in the way of soiled, sometimes ruined, wearing apparel. Not long ago we were in a hotel in our capital city when we overheard a guest complaining that some shirts he had left on his bed were ruined by soot that had blown in through an open window. The clerk advised that since this was a common occurrence during the winter season, the only thing to do was to keep the windows closed.

An interesting feature of the problem is the manner in which atmospheric pollution is surveyed. It seems that some fifteen years ago, in London, the matter attracted considerable interest and resulted in some experimental work by the Coal Smoke Abatement Society. As a result of their investigations, what is known as the jet dust counter was contrived and it accurately accounts for all soot particles in a given amount of air.

Heating engineers with whom we recently have discussed the subject aver that in the very great

per cent of cases there is no justification for a smoke nuisance, that it is a matter of fuel combustion and that engineering science now stands ready to abate the nuisance if given the opportunity. One authority only recently pointed out to us a cloud of smoke belching forth from the chimney of a local department store. He estimated that there was a fuel loss of at least thirty per cent at that moment, the heating plant being of the oil burner type. Flakes of oil soot up to one-half inch in diameter were falling all through the area, together with dense smoke clouds. He stated that with a proper adjustment of the burners there should be no smoke whatever. In our personal experience with an oil heater, we never have seen any smoke coming from the chimney, but a neighboring apartment house frequently throws forth dense clouds of oily smoke accompanied by large flakes of soot.

There is another phase to the question. We have no data on the subject immediately available, yet there can be no question but that this controllable situation is a health menace. It comes in the winter when colds are all too common, when the respiratory tract already is assailed, when perhaps the general resistance is lowered, and with the added injury due to the inhalation of enormous amounts of foreign material in the way of soot, coal dust and what-not, there can be no question but that it does a great deal of damage. In many sections of our State we do not have any too much sunshine under normal conditions, and when this is materially lessened in our cities by a dark pall of what has come to be called "smog" in Indianapolis, we have even less of that desirable commodity. Recently in Indianapolis the streets were beclouded with a dark gray, sooty pall, almost at noon time, and complete artificial illumination was necessary in stores and offices throughout the morning. Leaving the city, we found that on reaching the northern limits of Indianapolis, we suddenly emerged into as bright and sunny a day as one could desire.

The smoke nuisance, for the most part, is an unnecessary one. It can be controlled, and in the controlling the owner of the offending plant is assured a worth while saving. Most cities have "smoke prevention bureaus," and in most cities they are extremely inactive agencies. If our health departments would take an active interest, such bureaus soon would become active and that much could be done to control the situation.

Smog is more than a nuisance. It is a health peril. It can and should be abated.

COUNTER PRESCRIBING

"The Billion Dollar Sneeze" is the title of an article published in the November issue of *The American Druggist*. The article is well written and discusses the probable etiology of the common cold, not overlooking the popular conception that

a lack of vitamins may have something to do with a person's susceptibility to frequent colds.

The amazing thing about the article is the frank advice to druggists to set their stores in order and go out after this "cold business." As a sales talk it is very good and its author frankly advocates both diagnosing and prescribing on the part of the drug clerk. "Here are five steps our customers should follow," says the author, "to aid in the prevention of colds. When they follow these steps your preventive products sales will increase." The author also advises that "Clerks should be taught the practical advantage of solicitous inquiries about customer's symptoms. Muscular pains, sore throat, headache, clogged nasal passages, chills, chest pains and coughs, each may be the basis for the sale of a product over and above the one the customer came in to buy." In other words, a marked step-up in counter prescribing is advised. The enterprising drug clerk is told just what he may do toward making a diagnosis, but not one word is said about having the drug clerk offer the very good advice that it would be well for the prospective customer to see his physician, that November is a "pneumonia month" and that the thing complained of may not be just a common cold.

Cod liver and other fish liver oils certainly have their place in the management of colds through the building up of resistance, but we continue to believe that even this therapy should be undertaken only upon the advice of a physician.

Sprays, nasal drops, and inhalants also have their place, but only the physician should determine what to use and when to use it. Further, the manner of its use is frequently of the greatest importance.

The article above mentioned seemingly omits nothing. It advises in the matter of an "over-acid condition of the body" and suggests that milk of magnesia, antacid powders and tablets may be suggested with safety. Laxatives come in for lengthy comment and the naive suggestion is made that "you can recommend a ten-cent item or make a \$1.25 sale, depending upon your method of merchandising. Every druggist knows the range of laxative preparations and they are too numerous to classify."

Proper counter and window displays are considered important, and to that we take no exception, for druggists, like other merchants, have stock for sale and it is to their advantage to display it attractively to potential customers. The thing we do not like is the advocacy of counter prescribing. Drug clerks have little more than a smattering of medical knowledge, certainly not enough to qualify as differential diagnosticians. We know of the dangers attending even the common cold; we know the remedies therefor; we alone should determine what the patient should do. On the whole, the article appears to be about "tops" in injudicious advice.

ELIXIR SULFANILAMIDE

The United States Secretary of Agriculture, in response to resolutions from the House and the Senate, has made a report to these bodies regarding the unfortunate outcome of the inhibition of elixir sulfanilamide, the proprietary preparation known to have caused seventy-three deaths and suspected of causing a score more. The report (published in *The Journal of the American Medical Association* for December 11) covers the matter thoroughly and makes it quite plain that legislation must be made to curb the manufacture and sale of all preparations dangerous to the public health. The Secretary starts with the premise that there is no present law having provisions against dangerous drugs of this sort, and the report frequently calls attention to the need of such legislation.

It seems that 240 gallons of the preparation were made and that a little more than eleven gallons were dispensed either upon orders of physicians or via counter prescribing in pharmacies. About one-half of this amount was consumed and caused the deaths under investigation. This same ratio would indicate that more than 2,000 persons would have lost their lives if the entire 240 gallons had been dispensed and consumed.

As is generally known, the lethal effect of this proprietary was due to the amount of the solvent used, diethylene glycol, a drug well known to the medical profession and to industrial manufacturers. The Secretary states that the elixir was rushed on to the market before any attempt had been made to determine what its effect on humans might be and points out that had laboratory tests been made, this great pharmaceutical disaster would have been avoided. He further calls attention to the fact that *most of the drug was administered on physicians' prescriptions!* Had these same physicians observed the very safe rule not to prescribe preparations which have not been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, they would have avoided considerable embarrassment, to say the least. The Secretary states that the so-called control laboratory used by the Massengill Company merely "checked the 'elixir' for appearance, flavor, and elegance."

The Massengill Company seems open to other indictments as well. The Department of Agriculture first received notice of deaths from this nostrum on October 14th. It is reasonable to suppose that the manufacturing company knew of this at least on the same date. On the following day, October 15th, the Massengill Company advised its customers: "Do not use elixir sulfanilamide shipped; return our expense." And to their salesmen went a wire to the effect that the "elixir" had been discontinued and that they should pick up all available bottles. It should be noted that in neither of the messages was there

one word indicating that the nostrum was of the death-dealing sort. As Editor Fishbein pointed out, it was necessary for the Department to prod the company into making their telegraphic information more clear.

Actually, the required publicity regarding the danger from this preparation was made chiefly through the 239 operatives of the Department, the press, and the radio, not to mention that sent out through the medical profession. Practically every physician who was called upon to assist did so with a will. It was necessary to cause the arrest of one, and in another instance a physician was found to be non-cooperative to the highest degree. On the whole, however, much credit is accorded the profession in the Secretary's report.

There is one significant statement in the report which we will quote: "While the 'elixir' incident has been spectacular and has received much publicity, aside from the brevity of the period in which the killings occurred, it is but a repetition of what has frequently happened in the past in the marketing of such drugs as dinitrophenol, cinchophen and other toxic substances." In speaking of drugs advertised as cure-alls for serious conditions, he says, "Sick people rely on false curative claims made for worthless concoctions and thus permit their disease to progress unchecked. The report makes certain recommendations to the Congress, all of which are timely. Congress has asked for a report from the Department; the Secretary has responded in terms unmistakable in their meaning and importance; it remains for the Congress to do something about it."

FOUR HUNDRED THIRTY PHYSICIANS

Yes, quite a furore was created when this number of physicians, many of them prominent in the medical affairs of their home communities, attached their names to a much publicized report which at first glance seemed to be the forerunner of a revolt against organized medicine.

Officials of the American Medical Association held conferences on the subject and much of the time of the annual Secretaries' Conference was given over to it. Our medical journals took up the cudgels and editorialized at great lengths; state association officials went into conference and, in short, all concerned were more than commonly interested in the very important question that so suddenly was thrust upon us.

Now that sufficient time has elapsed to study the pronunciamento and to analyze the list of signers, the question does not appear so ominous. There are certain interesting developments, such as declarations that not a few of the signers attached their names without consideration of what was being signed; there is more than a suspicion that some names were written on the document because certain names of prominence were found thereon. Then, too, the fact that 219 of the signers, more

than half the total, are definitely connected with teaching staffs offers another explanation. These men, with their futures assured and with the possibility of their institutions being able to attract Federal funds, are not particularly concerned with the problems that confront the rank and file of the medical profession. Again, the facts are that but 168 of the total list of signers are engaged in active private practice. Further, it is to be noted that only 27 of the entire group are in general practice, the remainder limiting their work to special fields. As has been pointed out by several observers, a great many of these signers, especially those connected with teaching staffs, have had little or no experience in private practice, and it is also noted that there is listed an occasional resident physician with a hospital connection, a young man who has yet to enter private practice.

Just how these latter groups can know of the problems confronting medical men is quite beyond us. The man who spends *all* his time in institutional work cannot know aught of what really is going on in the thousands and thousands of medical offices over the country; he knows nothing of the economic problems that are every day events in the lives of those actually engaged in private practice. How, then, can such men be expected to offer even sensible programs for improving medical conditions—granted that improvement is needed?

Our notion is that many of the 430 signers now find they have assumed something, that they have taken upon themselves quite a burden, when a small group of 430 essays to speak for 160,000 men actively engaged in the practice of the healing art. They are waking to the fact that the men who actually do things in medicine are resentful of their having entered into such a pact. Practically every state organization has acted upon their attempt to usurp prerogatives which are not within their province. The Indiana State Medical Association was one of the first to take such action, its Executive Committee some time ago having stated their position in no uncertain terms, the resolution appearing in this number of *THE JOURNAL*. Some of our county societies, notably Vigo, and some special societies have also stated their position in language quite unmistakable.

It is our present belief that many who signed the original document wish now that they had considered for a moment just what its effects might be; we are of course proud that no Indiana physician's name appears on this list, though to our personal knowledge Indiana was not overlooked when "invitations" to sign were being sent out.

In this connection we join with our Association officials and those of the American Medical Association in suggesting to county medical societies that they be chary about endorsing any of the several substitute programs that were broadcast soon after the "big committee" had done its stuff. We believe that the safe policy will be for county medical society groups to refer all such matters to headquarters for an opinion before taking action.

Editorial Notes

FIRST COUNTY MEDICAL SOCIETIES WITH 100% PAID-UP MEMBERSHIP FOR 1938

Sullivan County: Dr. James B. Maple, Secretary.

Carroll County: Dr. E. H. Brubaker, Secretary.

Several physicians have requested information concerning the original principles and proposals of the "Committee of 430" and they are printed in full under the department of Societies and Institutions in this issue of *THE JOURNAL* along with recent resolutions passed by committees of the Indiana State Medical Association and a county medical society.

The physicians now living in Indiana are the only individuals therein residing who are capable of giving its citizenry adequate medical care. How absurd it would be (and what fools we would be!) if we allowed ourselves to be jockeyed into the position of relinquishing our rights to give that service, or to guide every medical phase of the public weal!

There is a noticeable continued activity in our county medical societies in the matter of programs on syphilis, and this is in line with the campaign against the disease now being waged in every section of the country. The Indianapolis Medical Society devoted the entire program of December 14th to this subject, the local situation being the prevailing subject under discussion. All county societies should devote at least one full program to the subject during the present year, and occasional papers should be included in programs throughout the year.

Bulletins concerning the June meeting of the American Medical Association in San Francisco continue to arrive. It seems that all West Coast physicians are determined to make this an outstanding meeting. Advance reservations are the heaviest in the history of the American Medical Association. If sufficient Indiana physicians are interested and will write to Secretary Hendricks, arrangements will be made for a special car for the trip. California in June is at her best and the jaunt will provide a delightful vacation. Better make that reservation right now—for your hotel accommodations, write to Dr. Frederick Warnshuis, 450 Sutter Street, San Francisco.

When he is licensed by the duly authenticated Board of Medical Registration and Examination, the physician secures for himself certain rights which are guaranteed to him by the Constitution of the United States. It is only when every ethical physician practicing in Indiana joins his local county medical society and thus obtains membership in the State Association, that the state organization can put forth its best effort to eradicate the professional chiseler who, unable to enter medical practice by the front door, is only too willing to use the side door, the back door, or any convenient trap door. Let us close all illegitimate entrances.

Representative Towey of New Jersey has introduced into Congress a resolution to establish the Cancer Research Foundation of the United States of America. He seeks an appropriation of one million dollars for the Foundation fund, to be invested in government securities, and the income to be devoted to research activities. Further, he proposes that an annual appropriation of fifty thousand dollars be added to this income, the interest accruing from this fund to be annually awarded to the person considered to have performed the most valuable research in the cancer field, regardless of his nationality. The resolution stipulates that a board of five members shall be appointed to control the organization, of whom one shall be the Surgeon-General of the U. S. Public Health Service.

Dave Sugar, former president of the Wayne County Medical Society (Detroit) and a writer of marked ability, sums up (in the *Detroit Medical News*) his comment on the "Committee of 430" with the following:

"If state medicine is superior for one-third the population, it is superior for all the people.

"If state medicine is the thing, then socialization of food, clothing, housing, transportation, manufacturing—socialization of everything in this nation is indicated and on the way.

"It is not medicine that is at the cross-roads. The whole social-economic destiny of this country depends upon the decision resulting from the conclusions of the foregoing principles and proposals."

As was to be expected, the campaign against venereal diseases has brought out the chiselers and parasites who are ever ready to capitalize on any and all health movements. *The Journal of the American Medical Association* for December eleventh calls attention to such an organization in California, incorporated under the euphonious title, "Social Hygiene Foundation of America."

The outfit seeks to enroll merchants who handle food and to see to it that all employees are free from venereal diseases. It seems that the fee exacted from these firms will be twenty dollars annually, the "Foundation" agreeing to make two examinations of employees each year. The joke of it is that the doctor who takes the blood for serological tests is to receive a fee of fifty cents, the laboratory a like amount, and we presume that the eighteen dollar balance will go to organization expense!

Members who plan to attend the San Francisco session of the American Medical Association, June 13 to 17, are reminded that it will be advantageous to make hotel reservations early. Secretary Fred Warnshuis of the California State Medical Society advises that on November first more than five thousand hotel reservations had been made. It will be a waste of time to write directly to the hotels, since all reservations are to be cleared through Secretary Warnshuis. A letter addressed to him at 450 Sutter Street, San Francisco, will be promptly answered and you will receive confirmation of your reservations. Give full information as to the number in your party and the type of accommodations wanted, and mention the length of time that you expect to remain. A bit of attention to this matter now will save several hours of grief if you land in the convention city without a reservation.

Physicians are reminded by the Collector of Internal Revenue that a special permit is necessary to use or prescribe marihuana. Those who are accustomed to use or prescribe tincture of cannabis indica or fluid extract of cannabis are warned that these products cannot be used except by special permit. Physicians who are interested will do well to consult the Collector about the matter. An interesting side light upon this regulation is the fact that certain sedatives in the proprietary field will come under the ban. The Collector advises that because the law was only recently enacted, he is not in a position to say just which drugs are concerned, but he does mention in a letter to the secretary of the Indianapolis Medical Society that Neurosine, Bromidia, Chlorodyne and various neuralgic and cough mixtures are concerned. Physicians should check their stocks of drugs to see that they have none which come under the ban.

Once again your attention is directed to a ruling regarding registration at the annual sessions of the American Medical Association. Every member of a state medical society is a member of the American Medical Association, but he is *not* a Fellow. Fellows of the A.M.A. are members of the Association who have made application for

and have been accepted as such, and only Fellows can register and take active part in the annual conventions. Many of our members are subscribers to *The Journal of the A.M.A.* and believe that, because of that fact, they are Fellows; this is not true. To become a Fellow, it is necessary to procure from the State Association secretary the necessary application blank, complete the form, and mail to A.M.A. headquarters, 535 North Dearborn Street, Chicago. The annual fee is seven dollars, which includes an annual subscription to *The Journal of the A.M.A.* If you are planning to attend the convention in San Francisco next June, investigate your status before you go. If you are not going, think over the matter of becoming a Fellow, anyway; it's worth a lot to any physician.

The National Better Business Bureau has called attention to the probability that because of the publicity given the unfortunate combination of sulfanilamide and diethylene glycol, these two worthwhile products may be temporarily condemned by physicians and public alike, and their use thus deterred with a consequent detrimental effect upon the progress made in industry and in medicine through these two products. Each has a definite and valuable place and false propaganda should not be allowed to stand in the way of their use. The National Better Business Bureau quotes from *The Journal of the American Medical Association* (November 20th issue) as follows:

"Another lamentable feature is the manner in which various businesses involving the use of either diethylene glycol or sulfanilamide are being attacked in uninformed editorials or by whispering campaigns set afoot by competitors who do not hesitate to profit from unanticipated misfortune. Clearly these deaths resulted from overdosage of a toxic agent wrongly used. Such an incident bears no relationship to the proper uses of either of the substances concerned."

The Bureau of Publicity in its weekly release for December 11 calls attention to the rise in the smallpox curve. Back in 1930 there were reported to the State Board of Health some 5,313 cases of smallpox in the state; in 1934 this number had dropped to 77; in 1936 it stepped up to 106, and up to November 20, 1937, the number had increased to 360. Laxity in the matter of vaccinations is responsible. Smallpox is a preventable disease. It is one that will slumber along over a period of years, then break out with an amazing number of cases. It remains one of those pestilential affairs that demands constant watching. An interesting statement in the release is the fact that 33 out of each 1,000 students entering American schools never have been vaccinated. The large steel and industrial plants of the Calumet region in Lake county are seeing to it that their employees are

immune to smallpox; they are vaccinating all employees as a result of the publicity recently given to the subject.

President Kiser of the Indianapolis Medical Society takes time out to wonder if the members pause to think of the enormous amount of work done by officers and committee members of an active county society. We often have felt the same way about not only the county society officials but those who direct the affairs of the State Association. Some of the committee assignments in our Association long ago ceased to be matters of honorary recognition; they have become *jobs*, often real tasks. For example, the members of the Executive Committee hold monthly sessions of six to nine hours, every minute of which is utilized in the discussion of affairs that have come up during the previous month. The Publicity Committee holds a meeting every week, and it is one of the live committees of the Association that is doing such fine work. Then there is the Legislative Committee, ever alert for matters that may affect the profession of medicine. As a matter of fact, every committeeman has something to do and he usually does it well and ungrudgingly. Ours must be a great profession to thus engage the active attention of so many busy men.

Newspaper comments in regard to physicians' incomes a few weeks ago were rather surprising to us in that physicians headed the list in amount of income received from professions. Inquiries which have been made by authoritative sources in times past have shown that it is rather doubtful whether anybody knows just what is the average income of physicians in the United States. Information secured from a comparatively large number of physicians disclosed the fact that it was practically impossible to assemble and interpret the figures so that any very definite estimate of the average income could be arrived at. Physicians in one community will respond freely to such requests for information, while physicians in another community will completely ignore them. Thus the picture produced could not possibly be considered as representing the facts in all parts of the country. With so many figures on this and averages on that appearing in the press, the conclusion seems warranted that, like statistical figures and Biblical sayings, the averages resulting from surveys may be so arranged that they will represent any conclusion that one may wish to establish.

The Women's Field Army Against Cancer of the American Society for the Control of Cancer is extending its work into practically every state in the Union. From the very beginning the medical profession has been asked to direct the work of this organization, and in every state lay leaders

have been appointed only with the approval of medical organizations. The activities of lay workers are restricted to organization and other problems. Physicians are asked to present talks when the scientific aspects of cancer are concerned. Thus the program is developed along lines favorable to the physician, yet at the same time there is placed upon him the responsibility of making the program as effective as possible. The program is built around the fact that early cancer is curable, and the periodic examination of the apparently well individual is urged as a means of detecting early cancer. Physicians are thus given an opportunity for constructive participation in a nation-wide health education movement, and the physicians of Indiana should see to it that no patient is denied the fullest measure of service within the power of physicians to render. Last year this work was carried on through the Bureau of Publicity of the Indiana State Medical Association; this year a special committee has been appointed by President Baker as follows: Dr. E. E. Padgett, Indianapolis, chairman; Dr. C. L. Botkin, Muncie; Dr. E. H. Andrews, Peru; Dr. O. T. Brazelton, Princeton; Dr. O. H. Stewart, Aurora; and Dr. Alan R. Chambers, Fort Wayne.

More than three thousand Hoosier physicians will constitute the membership roll of the Indiana State Medical Association for 1938. Some time during the year they will pay their annual dues to the local county society secretary. Many already have taken care of that little duty and many more will see to it that their check is in the hands of the secretary before February first. Some will forget about it for a while, but will come along with their dues before June first. Only a few will ignore all letters and requests until late in the year. As a matter of good business, if for no other reason, it is desirable to attend to this matter at the beginning of the year. In the first place, delinquency begins as of February first. This means, for example, that medical defense is at once jeopardized. If suit is brought for malpractice in a case treated during the period of delinquency, the State Association cannot assist you in that suit. This department of Association activity has a mighty good record; it has given the best of protection to its members and one should see to it that it is available at all times. Delinquency after June first means that THE JOURNAL ceases its monthly visits to you, and we like to think that you want THE JOURNAL. Delinquency also means extra work piled onto the secretaries, for it means the writing of numerous unnecessary letters; it means many, many references to the records and a lot of bookkeeping work which, if it could be done at the first of the year, would save an enormous amount of time. Each physician intends to pay his dues and continue his membership; why not do it right now and help your secretary and yourself?

President's Page

Frequently today the physician finds articles in the press questioning his efficiency and his methods of practice. Such articles accuse him of ignoring preventive medicine in his daily work. He is bewildered and defensive in his attitude, for he feels that he is doing his job well. Even superficial observation will disclose the marked drop in death rate as a result of measures instituted by the medical profession in controlling tuberculosis, malaria, typhoid, diarrhea, yellow fever, puerperal sepsis and other infectious and non-infectious diseases. Preventive medicine is now being practiced by all physicians as private practitioners to some degree. In many parts of the state, the county medical unit has a definite program. The time is ripe to correlate these scattered activities, survey our local situations, and acquaint the Indiana public with the extent of this phase of our work.

Preventive medicine is visualized as a wheel with each spoke representing some important phase. Each phase will be featured as a "subject of the month" in *THE JOURNAL*, and each subject should be discussed in each county medical society the month that the article is published; thus the local angle of the problem will be handled. The subject of the month could be given support in the press and speeches could be made to medical and lay audiences through the Publicity Committee.

Studies will be made of these subjects, the weak points found and corrected with due regard to the local situations. Many of our most important committees are functioning in this respect.

Too long have we kept our light under a bushel. It is time to take the offensive. The amount of preventive medicine can be increased by the private practitioner with definite benefit to his com-

munity and to himself, and the public will be made to realize that American Medicine is pliable enough to continue as an individualistic enterprise.

As one takes the long-range point of view and observes the significant epochs in the development of medicine, it is seen that medical organization set up for service to the public good existed when

man emerged from his early pagan origin. It has continued throughout the ages. It survived the intellectual darkness of the Dark Ages, to rise again in Spain and to be the first of the intellectual arts to emerge. With each succeeding historical epoch, organized medicine has had to change. We are now in one of those states of changing social customs and social aspirations. Certainly we have not reached either a cultural or social sufficiency, nor have we reached a static position.

We must and will accept change when we know that it is good, and we shall go forward. It seems to me that one of the most important problems facing our profession now is the problem of educating the profession and the

public to the necessity of maintaining the practice of medicine as an individualistic enterprise rather than permitting it to become a socialistic enterprise, because this offers the only hope of continued advance.

Herman M. Parker

Watch this page for further developments in the President's Program and for the TOPIC OF THE MONTH.



Cartoon by Karl Kae Knecht, Evansville

Secretaries' Conference

The annual Secretaries' Conference will be held Saturday, February 12, 1938, at the headquarters building of the American Medical Association, 535 North Dearborn Street, Chicago. It will immediately precede the Northwest Conference which will start on Sunday morning, February thirteenth. Dr. Olin West, general manager of the American Medical Association, has invited the secretaries to meet at the headquarters of the A.M.A., pay a visit and have luncheon at the A.M.A. building.

The tentative program for the Secretaries' Conference is as follows:

Saturday, February 12, 1938

- 10:00 to 10:30 a. m.—Registration.
 10:30 a. m. to 12:00 m.—Inspection tour of A.M.A. building.
 12:00 m. to 1:00 p. m.—Luncheon at A.M.A. building.
 1:00 to 5:00 p. m.—Program.
 Evening free.

Sunday, February 13, 1938

Palmer House

- 10:00 a. m.—Northwest Conference.
 12:30 p. m.—Northwest Conference luncheon. Indiana State Medical Association will be host.
 2:00 to 5:00 p. m.—Program.

COUNTY SOCIETY SECRETARIES AND PRESIDENTS ARE URGED TO ATTEND THIS MEETING. ANY INTERESTED MEMBERS OF THE INDIANA STATE MEDICAL ASSOCIATION WILL BE WELCOME.

Complete program will be published in the February issue of THE JOURNAL.

Completed

Secretaries' Conference Committee.

Under the Capitol Dome

MEASLES EPIDEMIC

A measles epidemic is expected in Indiana this winter by Dr. Verne K. Harvey, secretary of the Indiana State Board of Health. He estimated that approximately 20,000 cases might be expected during the late winter and early spring.

His forecast was based upon figures compiled by the health department over a period of years. An epidemic occurs every three or four years. Early reports of cases of measles indicate that a good start for an epidemic already is being made.

DR. HARVEY BROADCASTS

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, participated in the WLW radio broadcasting station's "School of the Air" on December 13. On the program with him were health commissioners of Kentucky and Tennessee. The program, conducted as an interview of the health officers by Peter Grant, WLW broadcaster, was devoted to an explanation of duties of health departments and reasons for their existence. High school and junior high school students in five states, West Virginia, Tennessee, Kentucky, Ohio, and Indiana, are regular listeners to the programs.

During the interview Dr. Harvey emphasized, among other things, that confidence is one of the biggest factors in public health administration. "Any efforts of a health department without confidence on the part of the public in general and the medical profession in particular, would be largely in vain," Dr. Harvey told his listeners. "The Indiana State Board of Health in the past few years has tried to shape its program around principles which would encourage that spirit of confidence."

At another point Dr. Harvey said: "I should like to deliver this general message to our listeners. The state has just as much of a responsibility to its people in the matter of public health as it has in the matter of public education. Why spend upwards of \$13,000,000 on education and then allow the teachers' efforts and a part of the state's money to be spent on the child who is either absent from school a great deal or who must repeat one or more grades because of preventable disease or undiscovered physical defects or mental conflicts that might well have been corrected had an adequate public health program been at work in the community? Good health is economical."

DRIVER'S LICENSE LAW

The new automobile driver's license law, which is of interest to the medical profession because of some of its provisions, becomes operative on January 1.

PAY YOUR DUES IN JANUARY
AND AVOID DELINQUENCY

In the case of only one type of license is an examination by a licensed practicing physician required. This is the license issued as a public passenger chauffeur's license, and is for all drivers of school busses, motor bus drivers, and taxicab operators. No licenses of this type will be issued without the medical report. This is a new feature of driver's license procedure in Indiana, although several motor bus companies had required physical examinations of their drivers as a company regulation.

Persons who obtain beginner's licenses are required to pass a driver test, after first taking a series of other tests intended to determine their knowledge of highway laws, and related data. Included in this is an eye examination. Applicants also are required to state their physical condition on application forms. In the event that applicants fail to pass the eye test, examiners turn them down and recommend consultation with an optical expert. In cases of doubt in the minds of examiners of the sufficiently sound physical condition of applicants, they may require them to obtain a physician's report before issuing a license.

REGISTRATION BOARD MEETING

The State Board of Medical Registration and Examination will hold its regular annual meeting January 11, in the offices of the board in the State House. Officers for the ensuing year will be chosen.

Voice of the Doctor

November 1, 1937.

To the Editor:

"We who are about to die" are living today in two ages.

We are living in the experience of those who were born in one era or epoch and have lived through the transition into the next era. I imagine it compares in past history to B.C. and A.D., or Before Reformation and After Reformation, or during the Dark Ages and over into the Renaissance, for I believe what I refer to, B.W.W. and A.W.W. (Before World War and After World War), has brought in many ways to us older men in medicine transitions as surprisingly phenomenal as were those which occurred in the lives of those who lived during the transitional periods mentioned.

This gives to us an advantage and also a disadvantage—an advantage in experience and a disadvantage in adaptation.

Before the World War, as I have observed, my office was a place for giving professional service.

It had an air of professionalism. Those who came and breathed its atmosphere never suggested, for fear of sacrilege, any commercial transactions or advertising. No one thought of cornering a doctor and putting him on the spot in his office in order to prospect for or to close a business deal. But that, as I said, was B.W.W., and this is A.W.W., and times and customs have changed a great deal within the last few years.

The doctor is now labeled as a man whose sympathies are large, whose wealth is great, whose tolerance is infinite, whose courtesies are inexhaustible, whose time is unlimited, whose office is a lair to which he can be tracked during certain hours every day and the atmosphere of which is no different than that of the stock exchange or of the out-lawed bucket shop.

Imposing themselves upon these supposed characteristics, the numerous peddlers intrude themselves into the office hoping they may find the doctor wanting shoe strings, neckties, socks, shirts, suits, rugs, butter and eggs, poultry, Christmas trees, honey, sorghum, fresh butchered pork, sassafras, razor blades and hones, and a what-not of other things. Automobile salesmen, insurance representatives, book and magazine agents, charity collectors, and many other types of solicitors have no unprofessional regrets when they slip by the doctor's secretary.

All this which I have enumerated from my notes we have with recognized good manners endured, and even more. It is the "more" which upsets me most and which I want to put before you and my brothers-in-helplessness. Misery loves company, you know.

The "more" refers to the well-named Detail Men, those commercialists who think or act as though they have much in common with the doctor inasmuch as they represent some concern manufacturing stuff from rubber diaphragms to patented labels and who assume the doctor is never engaged except when he has a patient in his office. Even then they often have the unlimited courage to ask for only a moment between patients so that they may advertise their articles and be on their way to the next doctor. It seems their boss imposes a minimum number of doctors upon them to detail each day. Their task, which arouses my sympathetic nature, is much like the automobile line. They should consider the C. I. O.

Now I have not one grain of animosity against the men as human beings. Aren't they up against the same barriers which force me to be where they find me—sitting at a desk wondering whether my next interruption will be a patient or a Detail Man? No, I can't blame these men because the wheel of fortune turned them around and around and finally dropped them by the hundreds as Detail Men into my office every day. But the system is wrong, for anything which gets to be a source of annoyance is not right. It is not giving the doctor a professional square deal. I do not want it replaced with any more New Deal, but I do

think these commercial houses are running a good thing into the ground and that they or the medical profession must soon institute a different method of bringing their products before the doctors, if that is necessary.

When the doctor recalls that nearly every one of these pharmaceutical houses are now members of competing chain businesses controlled and operated by huge financial holding companies on a purely profit basis, advertising to the doctor mostly questionable synthetics or other specialties, he wonders just what difference, if any, there is between the modern pharmaceutical houses and the automobile or steel industries. The product like the automobile makes a profit or goes off the market.

Such dun-colored thought does not expand the doctor's tolerant temperament, especially when he notes, as I have, the number of intrusions over a definite period of time. I would not be so rash as to suggest a plan for these commercial firms, but a thought which flashes only dull red instead of brilliant green into my mind suggests that we turn our medical society over to these companies. Such a plan, especially if accompanied by something other than sandwiches and coffee, might possibly add to the attendance. Please do not think I am facetious.

I am sorry to be the first to burst into writing upon these subjects, but someone always has to be the first soldier shot. Maybe it is only the A.W.W. and maybe the B.W.W. has gone forever like the two chickens in every pot and the fight against the Supreme Court.

However, I'm wondering—and that is about all an intelligent man can do these days—if the doctor in giving up the high topper, the Prince Albert, and the Van Dyke, for the soft collar, the checkered suit, spats and red shoes in order to be just one of the boys, did not lose in the exchange more than he realized?

Sincerely,

Frederick E. Jackson, M.D.,
Indianapolis.

May Your
NEW YEAR
be happy and
prosperous

Deaths

CHARLES FREMONT DAWSON, M.D., who practiced medicine for many years at Matthews, Indiana, died at his home in Fairmount, November twenty-seventh, aged eighty years. Dr. Dawson had retired from active work. He graduated from the Curtis Physio-Medical Institute of Marion in 1892.

ALICE E. TWICHELL, M.D., of Indianapolis, died November sixteenth, aged eighty years. Dr. Twichell had retired from active practice several years ago. She was a graduate of the Physio-Medical College of Indiana, Indianapolis, in 1896.

JACOB S. RINEHART, M.D., of Flora, died December second, aged sixty-three years. Dr. Rinehart graduated from the Eclectic Medical College of Cincinnati, Ohio, in 1903, and had practiced in Kokomo and Upland before he moved West. He practiced in Montana, Missouri and Texas, returning to Flora in 1934.

EDWARD EVERETT EVANS, M.D., of Gary, died December fifth, after a long illness. Dr. Evans was sixty-two years old. He graduated from the Wayne University College of Medicine, Detroit, in 1900, and in 1907 he established himself in Gary, where he continued in active practice until his illness forced retirement. In 1929 Dr. Evans was made industrial physician and surgeon for a Gary manufacturing company and he had held that position until the time of his death. He was elected coroner of Lake county, which post he held for four consecutive terms. Dr. Evans was a member of the Lake County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association, etc.

Dr. Evans served as a member of the Council of the Indiana State Medical Association continuously from 1925 to 1929 and was chairman of the Council in 1929.

E. A. SEVRINGHAUS, M.D., of New Albany, died December thirteenth, aged sixty-nine years. Dr. Sevringhaus had practiced in New Albany for forty-six years. He graduated from the Louisville Medical College in 1890 and from the Hahnemann Medical College and Hospital, Philadelphia, in 1891.

News Notes

Dr. Paul Gray has opened an office in Huntington where he will conduct a general practice.

More than 150 friends of Dr. Byron Spees gathered to honor him on his seventieth birthday anniversary at his home in Glenn's Valley. Dr. Spees still is engaged in active practice.

Dr. George Sandy has discontinued his practice in Martinsville to accept a position at the Central State Hospital in Indianapolis.

Dr. Russell Malcolm has moved from Ann Arbor, Michigan, to Richmond, Indiana, where he has opened an office in the First National Bank Building. Dr. Malcolm will specialize in surgery and gynecology.

Dr. and Mrs. A. J. Kelsey and daughter, Roberta, of Monterey, have gone to Phoenix, Arizona, for a three months' vacation.

Dr. G. S. Silverburg of the U. S. Veterans Hospital in Marion has been transferred to a position as medical officer in the government hospital at Gulfport, Mississippi. Dr. Silverburg has been a member of the staff at Marion for seven years.

Dr. Ira E. Perry of North Manchester has been named county health officer to succeed Dr. Arthur J. Steffen of Wabash.

The annual dinner dance and installation of newly elected officers of the Indianapolis Medical Society will be held at the Indianapolis Athletic Club on Tuesday, January eleventh. Reservations must be made through the secretary of the society, Dr. H. B. Mettel, not later than Saturday, January eighth.

Dr. George M. Brother, of Aurora, and Miss Wanda Dupies, of Terre Haute, were married November twenty-fourth in Terre Haute.

Dr. V. K. Stoelting has opened an office in Winchester where he will conduct a general practice.

Dr. John G. Cullin has assumed his duties as clinical director at the U. S. Veterans Hospital in Marion. Dr. Cullin fills the vacancy caused by the transfer of Dr. A. R. Woods to a similar post in Mendota, Wisconsin.

The Madison County Medical Society is preparing an interesting program on the subject of scarlet fever, for its meeting to be held at the Anderson Hotel, January seventeenth. This will be a dinner meeting, at 6:30 p. m., with Dr. G. V. Cooke, professor of pediatrics of Washington University, St. Louis, as the guest speaker. The program is being prepared through the cooperation of the Madison County Medical Society and the Bureau of Maternal and Child Health of the Indiana State Board of Health.

More than forty women physicians and lawyers attended a dinner meeting in the Business and Professional Women's clubhouse in Indianapolis, in November. Speakers were Attorneys Bess Robbins and Lucille Smith and Doctors Jane Ketcham and Exie Welsch. This was the first meeting of its kind ever held in the state, and the attendants voted to make the event an annual affair.

The annual two-day convention of the Western Surgical Association was held in Indianapolis, December third and fourth. More than 200 surgeons from throughout the United States and Canada were present. Dr. W. D. Gatch, dean of the Indiana University School of Medicine, was chairman of the arrangements committee for the convention. Officers for the Association were elected as follows: Dr. Casper F. Hegner, Denver, Colorado, president; Dr. Charles L. Patton, Springfield, Illinois, first vice-president; Dr. Alfred Brown, Omaha, treasurer; Dr. Albert H. Montgomery, Chicago, secretary.

Dr. Howard Fox, New York, was entertained at dinner at the Indianapolis Athletic Club by Dr. Daniel W. Layman, December 28. Dr. Fox was one of the speakers at the meeting of the American Association for the Advancement of Science.

DR. THOMAS PARRAN TO SPEAK

Dr. Thomas Parran, Surgeon-General of the U. S. Public Health Service, will address a dinner meeting at the Indianapolis Athletic Club, January fourth, on the subject "Syphilis Control." The meeting is being sponsored by the Indianapolis Council of Social Agencies and the Indianapolis Medical Society. Dr. Parran's personal appearance will be of especial interest to members of the medical profession, for it is through his efforts that the national movement for syphilis control has been so widely received by the profession and the general public. All members of the Indiana State Medical Association are invited to attend the dinner. Reservations must be made in advance by card or telephone to Dr. Howard B. Mettel, secretary, Indianapolis Medical Society, 614 Hume-Mansur Building, Indianapolis, before January third.

The American Social Hygiene Association, 50 West Fiftieth Street, New York City, is soliciting funds to assist in the campaign against syphilis and gonorrhea. A fund of \$500,000 is required now, and the National Anti-Syphilis Committee of the Association, with General John J. Pershing as chairman and Dr. Ray Lyman Wilbur as vice-chairman, urges that checks be sent to the Association at the address as given above. The Association is equipped to continue its educational program if sufficient money is made available.

Examination of candidates for appointment as Lieutenant (junior grade) in the Medical Corps of the Navy will be held at all Naval hospitals in the United States and at the Naval Medical School, Washington, D. C., beginning May 16, 1938. Candidates for admission must be between the ages of twenty-one and thirty-two years at time of appointment, graduates of class "A" medical schools, and have completed an internship of one year in a hospital accredited for internes by the American Medical Association and the American College of Surgeons. Those who are interested should write the Surgeon General, U. S. Navy, Bureau of Medicine and Surgery, Navy Department, Washington, D. C., for further information.

The next examinations (written and review of case histories) for Group B candidates of the American Board of Obstetrics and Gynecology who have filed applications will be held in various cities of the United States and Canada on Saturday, February 5, 1938. The general oral, clinical, and pathological examinations for all candidates will be conducted in San Francisco, June 13 and 14, prior to the meeting of the American Medical Association. Information and application blanks may be obtained from the secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

The American Board of Internal Medicine will hold its next written examination on Monday, February 14, 1938, in various centers of the United States and Canada. The candidates who are successful in this written examination will be eligible to take the practical examination which will be held in San Francisco the Friday and Saturday prior to the opening of the annual session of the American Medical Association in June, 1938. The final date for filing applications for this written examination is January 15, 1938, and all applications should be in the office of the chairman before that date. For further particulars and application blanks please address Dr. Walter L. Bierring, M.D., Chairman, American Board of Internal Medicine, Suite 1210, 406 Sixth Avenue, Des Moines, Iowa.

The American Public Health Association will hold its sixty-seventh annual meeting in Kansas City, Missouri, October 25-28, 1938. Affiliated organizations which will meet at the same time include The American Association of School Physicians, The Association of Women in Public Health, The Conference of State Laboratory Directors, The Conference of State Sanitary Engineers, The American Association of State Registration Executives, Delta Omega, The International Society of Medical Health Officers. An attendance of more than three thousand is expected.

A BILL TO SAFEGUARD THE PUBLIC HEALTH

The following Bill (S. 3073) has been introduced in the Senate of the United States by Senator Copeland; it has been read twice and referred to the Committee on Commerce.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) in order to safeguard the public health against the distribution of drugs which have not become generally recognized as safe for use, no person shall introduce or deliver for introduction into interstate commerce any drug composed, in whole or in part, of any substance or combination of substances, which substance or combination is not generally recognized as safe for use in the dosage and with the frequency and duration prescribed, recommended, or suggested in the labeling thereof, unless the packer of such drug holds a notice of a finding by the Secretary that such drug is not unsafe for use.

"(b) To enable the Secretary to make a finding on any such drug the packer thereof shall submit to the Secretary (1) full reports of investigations which have been made to show whether or not such drug is safe for use; (2) a full list of the articles used as components of such drug; (3) a full description of the methods used in, and the facilities and controls used for, the manufacture, processing, and packing of such drug; (4) a full statement of the composition of such drug; (5) such samples of such drug and of the articles used as components thereof as the Secretary may require; and (6) specimens of all proposed labeling for such drug.

"(c) To aid and advise him in making such finding the Secretary is hereby authorized to create a board consisting of one representative from each of the following organizations: The Public Health Service of the United States Treasury Department, the American Institute of Homeopathy, the American Medical Association, the United States Pharmacopoeial Convention, the American Pharmaceutical Association, and the Food and Drug Administration of the Department. No person who has a financial interest in the manufacture or distribution of any drug shall serve on such board. The Secretary is authorized to pay to each member of the board

who is not a representative of a Federal department \$25 per day for each day he is engaged in the work of the board. The appropriation for the enforcement of the Food and Drugs Act is hereby specifically made available for such purpose, and for travel and other expenses of all members of the board in accordance with the fiscal regulations of the Department.

"(d) If the Secretary, after having received the aid and advice of such board, finds that (1) such investigations include tests by all existing methods reasonably applicable to such drug; (2) the results of such tests do not show that such drug is unsafe for use as prescribed, recommended, or suggested in the labeling thereof; (3) the methods used in, and the facilities and controls used for, the manufacture, processing, and packing of such drug are adequate to preserve the identity, strength, quality, and purity thereof; and (4) that such drug otherwise complies with the other provisions of the Food and Drugs Act, he shall issue to such packer a notice of finding that such drug is not unsafe for use. In case the Secretary refuses to issue such notice he shall notify the packer of his reasons for such refusal.

"(e) The Secretary shall promulgate regulations for exempting from the operation of this section drugs intended solely for investigational use by persons qualified by scientific training and experience to make investigations as contemplated by this section.

"(f) This section shall not be construed to apply to drugs subject to the Virus, Serum, and Toxin Act of July 1, 1902 (U. S. C., 1934 ed., title 26, ch. 4)."

Indiana University News Notes

The Indiana University School of Medicine building on the campus at Bloomington was dedicated Saturday morning, November 20. Governor M. Clifford Townsend presided, and U. S. Senator Sherman Minton, who was instrumental in securing federal aid for the construction of University buildings at Bloomington and Indianapolis, gave the dedicatory address.

Dr. Fred C. Zapffe, secretary of the Association of American Medical Colleges, spoke at the dedication of the \$475,000 structure. The new building houses the departments of physiology, anatomy and hygiene and replaces medical classrooms formerly in Owen Hall, one of the original buildings on the present University campus.

"We dedicate this building to the spirit that has made Indiana what she is today, confident in the hope that it will stand as a monument to a great profession that never retreats but advances always in the service of humanity," said Senator Minton at the dedication of the new building.

"I have heard Indiana's medical school praised throughout the country. The enviable reputation it enjoys reflects the years of patient devotion to the ideals of the profession and the exacting requirements of the course of study prescribed. These have been in the hands of a devoted and faithful faculty.

"As we all recognize, education is the greatest and most successful of our social experiments. Education in the field of medicine, to which this building is dedicated, will equip young men and women to give back to society the greatest return



New I. U. Medical School Building at Bloomington

on that social investment in this education. Let no one forget who accepts the benefits of public education that he is a debtor to the social experiment. And that reminds me, that much is being said today about the socialization of medicine, and the medical profession is deeply concerned. As far as my observation goes, they are more concerned about it than anybody I know. Let it be understood now that I am not speaking in favor of socialized medicine, but if socialized medicine does come, there will be no one to blame for it but the medical profession. In a Democracy regulation or regimentation, if you please, comes only to those who must be regulated. The wise men of the profession will know how to avoid it."

Other speakers at the dedication of the building which houses the freshman year of the I.U. medical course were: Dean B. D. Myers of the Bloomington medical school, and Acting President Herman B. Wells.

President Wells spoke in appreciation of state and federal officers who had made possible the construction of the building. He read a wire from F. M. Logan, regional director of the WPA; and introduced E. J. Culbertson, resident WPA engineer and inspector, A. M. Strauss, architect, and W. C. Bevington, engineer.

Dr. Zapffe said: "You can be proud of this building, and I say that as one who has been visiting medical schools for many years. I have no hesitancy in saying that, in my opinion, the Indiana University School of Medicine ranks among the best in the United States."

Sixty-seven Indiana counties used the services of the Indiana University Psychological clinics at the Medical Center in Indianapolis and on the Bloomington campus, according to the annual report of Dr. C. M. Louttit, director of the clinics.

Work of the clinical services for the year ending September 30 included speech training for children, remedial orthoptic training in cross-eye cases, University instruction and lecture courses at Indianapolis and Bloomington, papers and addresses delivered before various organizations, and the beginning of a research project in the psychology of crippled children.

New cases at the Medical Center psychological clinic numbered 451, the report shows. There were 327 persons served at the clinics located on the Bloomington campus. This figure represents an increase over that of the previous year, and Dr. Louttit ascribes this gain to the larger enrollment in University courses in which advanced students routinely examine children referred to the clinic. In such cases the examinations and reports are supervised by the director.

Children served by the psychological clinic at Indianapolis included both patients in the hospitals at the Medical Center and children referred

to the clinics by schools, social service agencies, doctors, juvenile courts and similar groups. Dr. J. W. Carter, Jr., as senior clinic psychologist, was in direct charge of the clinics' operation. Miss Rhessa Routh was in charge of speech training, and Miss Dorrice Snyder was junior clinical psychologist and assisted Dr. Carter in the orthoptic training clinic.

Advanced students from the Bloomington clinic were taken to Martinsville at the request of M. S. Mahan, superintendent of schools, where 33 persons were examined. Nineteen students enrolled in the advance practice course and R. S. Ball, assistant, aided Director Louttit in the operation of the clinic on the Bloomington campus. During the year new quarters for the clinic were provided in Alpha Hall, the report states. Regarding the advantages of psychological examination of University students, Dr. Louttit's report reads: "I would again urge that the University make available a mental hygiene service for University students."

Three hundred students were enrolled in the various lecture courses given under the auspices of the clinics at Bloomington and Indianapolis during the past year. Courses included introductory clinical psychology, psychology of exceptional children, advanced clinical psychology and a seminar in clinical psychology.

Dr. Louttit addressed various groups on the work of the clinics during the past year, including such organizations as the Indiana State Teachers' Association, the Indiana Speech Teachers' Association, state and national conferences of social workers, regional psychological meetings and local parent-teachers' associations. Dr. Carter's activities included attendance at two psychological congresses in Paris during the past year, the report shows.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, November, 1937

<i>Diseases</i>	<i>Nov. 1937</i>	<i>Oct. 1937</i>	<i>Sept. 1937</i>	<i>Nov. 1936</i>	<i>Nov. 1935</i>
Tuberculosis -----	137	432	185	113	125
Chickenpox -----	233	93	16	413	407
Measles -----	97	55	29	25	41
Scarlet fever -----	579	576	149	436	682
Smallpox -----	73	10	8	7	11
Typhoid fever -----	20	16	19	5	11
Whooping Cough ----	109	107	156	82	150
Diphtheria -----	132	113	42	121	291
Influenza -----	102	124	45	44	104
Pneumonia -----	71	63	26	69	72
Mumps -----	16	19	4	48	103
Polio myelitis -----	3	19	49	6	9
Meningitis -----	6	3	4	6	6
Silicosis -----	1	1	0	0	0
Undulant fever -----	2	5	0	1	0
Tularemia -----	4	1	0	0	0

Societies — Institutions

RESOLUTIONS CONCERNING THE PRINCIPLES AND PROPOSALS OF THE COMMITTEE OF PHYSICIANS

We have had several requests to publish various letters and resolutions in regard to the Principles and Proposals of the Committee of Physicians and it seems advisable to publish the proposals for the information of those who have not seen them. Resolutions passed by the Board of Trustees of the American Medical Association in regard to these proposals were published in the December 1937 issue of *THE JOURNAL* (page 646). The proposals are published herewith, followed by resolutions of the Executive Committee and the Committee on Public Policy and Legislation of the Indiana State Medical Association and a letter from the officers of the Vigo County Medical Society.

THE PRINCIPLES AND PROPOSALS

Principles

1. That the health of the people is a direct concern of the government.
2. That a national public health policy directed toward all groups of the population should be formulated.
3. That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.
4. That in the provision of adequate medical care for the population four agencies are concerned: voluntary agencies, local, state and federal governments.

Proposals

1. That the first necessary step toward the realization of the above principles is to minimize the risk of illness by prevention.
2. That an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (local and/or state and/or federal).
3. That public funds should be made available for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible.
4. That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.
5. That public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services.
6. That in allocation of public funds existing private institutions should be utilized to the largest

possible extent and that they may receive support so long as their service is in consonance with the above principles.

7. That public health services, federal, state and local, should be extended by evolutionary process.

8. That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts.

9. That the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates in our opinion a functional consolidation of all federal health and medical activities, preferably under a separate department.

The subscribers to the above principles and proposals hold the view that health insurance alone does not offer a satisfactory solution on the basis of the principles and proposals enunciated above.

RESOLUTIONS CONCERNING THE PRINCIPLES AND PRO- POSALS OF THE COMMITTEE OF PHYSICIANS

Members of the Executive Committee and of the Committee on Public Policy and Legislation of the Indiana State Medical Association have approved the following resolution:

WHEREAS, Certain "Principles and Proposals" by "The Committee of Physicians" have been circulated during recent weeks, the Executive Committee and the Committee on Public Policy and Legislation of the Indiana State Medical Association have given this question extensive study, and

WHEREAS, Those proposals set up a system whereby the Federal Government would furnish moneys for medical care of the indigent, medical research and subsidy of medical schools, and

WHEREAS, This would mean Federal domination and control of medical practice, and

WHEREAS, Such a plan might be the beginning of government control of medical practice in its entirety and not merely for the indigent, and

WHEREAS, It is possible that such a system might degenerate into a political system with all of the evils of political patronage, and

WHEREAS, The best interests of the public may be served by the present plan of private practice cooperating with government units but not dominated by them, therefore,

BE IT RESOLVED, that the Executive Committee and the Committee on Public Policy and Legislation of the Indiana State Medical Association oppose the "Principles and Proposals" as circulated by the "Committee of Physicians."

The Vigo County Medical Society, through its appointed committee, has sent the following communication to Dr. John P. Peters, secretary of the "Committee of Physicians":

"Your communication from the committee of Physicians was received and presented at the last meeting of the Vigo County Medical Society. After thorough discussion, the proposals as set forth in your communication were unanimously rejected, and the below-named committee was ap-

pointed to prepare an answer, setting forth the principal reasons for rejection.

"1. We believe all action should be through properly elected representatives of the House of Delegates of the American Medical Association, and that no independent groups should inaugurate plans and allow publicity.

"2. In all respect to social workers and sociologists, we believe the large part of them are poorly informed, highly theoretical, are idealists and impractical, being especially ignorant of the practice of medicine; and that medicine as practiced for the past decade has done and is doing more for the health and happiness of the people, without interference from social workers, than any other branch of human beings; and that if medical men are left alone, they can and will work out any and all necessary changes.

"3. We do not believe in principle No. 1 except as concerns sanitation, prevention, contagion, infection, and allied conditions.

"4. We disagree with other statements as set forth under both principles and proposals, but feel the three objections listed above are sufficient reasons for rejecting any support of this movement."

"Respectfully,

"J. H. Weinstein, M.D., Chairman,

"O. O. Alexander, M.D. "F. G. McCarthy, M.D.

"O. T. Allen, M.D. "A. M. Mitchell, M.D.

"Committee"

Indianapolis Ophthalmological and Otolaryngological Society

At a meeting of the Indianapolis Ophthalmological and Otolaryngological Society, held December 9, 1937, this society took a definite stand upon the "principles and proposals of the Committee of Physicians" sent to us recently for our consideration. As secretary, I am instructed to convey to the Indiana State Medical Association information concerning the action taken. The following copy of the reply sent to Dr. John J. Peters, the secretary of the Committee of Physicians, will supply that information:

"Dear Dr. Peters:

"About six weeks ago I received from you a communication setting forth the principles and proposals of the Committee of Physicians, with the request that this document be presented to the Indianapolis Ophthalmological and Oto-Laryngological Society, and that you be notified of such action as might be taken by this organization.

"The report of the committee appointed for this purpose was presented at a recent meeting of this society. As secretary, I was instructed to advise you that the consensus of opinion voiced at this meeting is that the Indianapolis Ophthalmological and Oto-Laryngological Society is opposed to the policies outlined in the principles and proposals of the Committee of Physicians."

(Signed) Kenneth L. Craft,
Secretary.

RESOLUTION ADOPTED BY THE SYPHILIS CONTROL COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION

WHEREAS, the value of education in any procedure is realized, therefore be it

RESOLVED, That the State Board of Health have its annual meeting some time during the month of January, and that the program of this meeting be devoted to such papers and articles as will be of advantage to the health officers at a meeting which will be held later in their own communities. It is hoped that at this meeting such topics as legal procedure surrounding infectious cases in various communities may be freely discussed. It is the desire of the committee that every health officer be thoroughly acquainted with his rights when a case is found which is spreading the disease in his community, i.e., how far may he go in demanding treatment? What procedure should he follow in case of necessary quarantine, etc.? Be it further

RESOLVED, That at the annual meeting of the State Health Officers, a discussion of marriage laws and their effect be entered into. It is probable that a future session of the Indiana State Legislature will introduce a law amending the present marriage law. Each health officer should be acquainted with the law so that he may acquaint his community with its content. Be it further

RESOLVED, That the mothers of the State of Indiana be made to realize the desirability of having blood tests.

(In other words, the Committee for Syphilis Control is anxious that a definite program be established which may be carried into the communities of the local health officers when they return home.)

Be it further

RESOLVED, That each health officer cooperate with the local medical society in order that a mass meeting may be held some time near February 2, the date which has been set aside by the American Social Hygiene League for this purpose. Representative people interested in public health should be invited to this meeting. A frank discussion of the above points should be entered into. Be it further

RESOLVED, That the fine gesture of the pathological laboratory men, in standardizing fees for blood examinations, be commended and that a laboratory man be placed upon the Syphilis Control Committee in order to represent their interests. Be it further

RESOLVED, That the State Board of Health substitute on health certificates for food handlers, the following printing: "Necessary laboratory examinations, as requested by physicians in connection with health certificates for food handlers, will be made at the laboratory of hygiene of the State Board of Health without expense to the applicant, if he is unable to pay for same."

The above resolutions were approved and adopted by the Committee on Syphilis Control of the Indiana State Medical Association, at a meeting held in Indianapolis, Indiana, on November 26, 1937, and were submitted to the Executive Committee of the Indiana State Medical Association for approval.

F. R. NICHOLAS CARTER, M.D., Chairman,
Committee on Syphilis Control

INDIANA STATE MEDICAL ASSOCIATION

THE EXECUTIVE COMMITTEE

November 7, 1937.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. D. Clark, M.D.; H. M. Baker, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Upon motion of Dr. Baker, seconded by Dr. Clark, the minutes of the meeting of October 3 were approved.

The monthly statements of receipts and expenditures for October for the Association committees and THE JOURNAL were approved.

Membership Report

Number of members Nov. 6, 1937-----	2970
Number of members Nov. 6, 1936-----	2813
Gain over last year-----	157
Number of members Dec. 31, 1936-----	2840

Treasurer's Office

Upon the motion of Dr. Clark, seconded by Dr. Baker, the treasurer was authorized to purchase government bonds with any excess funds in the treasury of the Association.

1938 Session at Indianapolis

(1) *Date.* The Committee approved the dates of Tuesday, Wednesday and Thursday, October 4, 5 and 6, 1938, for the eighty-ninth annual session of the State Association which is to be held in Indianapolis.

(2) *General Chairman.* Dr. Norman Beatty of Indianapolis has been named general chairman of the Arrangements Committee by Dr. Baker.

(3) *Convention Headquarters.* The Committee discussed possible convention headquarters. The most acceptable place would be either the Scottish Rite Cathedral or the Murat Temple. Investigation as to the availability of these two sites is to be made immediately.

(4) *Special Convention Newspaper Section.* Report made that the Bureau of Publicity is investigating the feasibility of having one of the local newspapers put out a special convention section previous to the next annual meeting. The Committee suggested that the Bureau of Publicity investigate this matter further and report back at a later meeting.

Legislative, Legal, and Social Security Matters

(1) *Meetings with Congressmen.* The Legislative Committee has suggested that the officers of the medical societies in each local district contact their congressmen and present to them the stand of organized medicine against socialized medicine. Reports made that such meetings have been held with Congressmen Farley, Boehne and Gray.

(2) *Resolution against Senator Lewis' Proposal to Federalize Medical Practice.* Dr. Norman Beatty presented a resolution which he had prepared upon the authority of the Council of the Indiana State Medical

Association to the Executive Committee. Upon the motion of Dr. VanBuskirk, seconded by Dr. Austin, the Committee moved that this resolution be sent to Senator Lewis and a copy to the Illinois State Medical Society.

(3) *National Legislative Outlook.* Letters from Dr. Olin West in regard to the national legislative outlook at the present time brought to the attention of the Committee. Dr. West feels that the administration will not back any program for socialized medicine at the next session of Congress despite various articles that have appeared to the contrary.

(4) *Liability of Insurance Company for Medical Bills in Poison Ivy Cases.* It is the opinion of Albert Stump that the insurance company is liable for bills rendered for services to clients in these cases.

(5) *Right of Trustee to Hold Up Poor Relief Voucher from Physician.* It is Albert Stump's opinion that the trustee has a right to do this.

(6) *Right of Physicians to Deduct \$3,000 from Their State Income Taxes.* If dispensing physicians take out a retail store license and consider themselves as retail merchants rather than professional men they may be exempt to the amount of \$3,000 as provided by the statute passed in the 1936 session of the legislature. However, they must pay a store tax and they are obligated to pay the taxes that a retail merchant must pay if they claim this \$3,000 exemption.

(7) *Right of a County Attendance Officer to Demand that a Parent Change Physicians.* It is the opinion of Albert Stump that a county attendance officer has no right whatever to make such a demand and the attendance officer has been so notified, both by the office of the State Superintendent of Public Instruction and by the local authorities.

Sickness Insurance and Socialized Medicine

(1) The principles and proposals of the so-called "Committee of Physicians" broadcast over the names of 430 physicians brought to the attention of the Executive Committee. These proposals in the main are the same as those made by the New York State Medical Society at the American Medical Association meeting last June at Atlantic City. These principles failed to receive the approval of the House of Delegates of the American Medical Association at that meeting. Upon the motion of Dr. Baker, seconded by Dr. Austin, the Committee decided to defer official action in this matter until the next meeting of the Committee in order that the members of the Committee may have the opportunity of obtaining copies of these principles and making a complete study of them.

(2) *Talks before Women's Clubs on Socialized Medicine.* Several notices have appeared in the newspapers in regard to programs being held by women's clubs throughout the state at which the members have read papers on such subjects as "Chaos and Health Service," "Should Medicine Be Socialized," and "Opposition to Health Insurance in America."

(3) *First-Hand View of Socialized Medicine in Europe.* Letter received from Dr. W. U. Kennedy of Newcastle in regard to the situation in Europe and Dr. West's comment in regard to Dr. Kennedy's letter brought to the attention of the Committee. It is hoped that Dr. Kennedy will prepare an article soon for publication in THE JOURNAL concerning the situation as he found it in Europe.

(4) *Cooperative Health Association Established in Washington, D. C.* This information brought to the attention of the Committee along with a newspaper notice under a Washington date-line that the District of Columbia Medical Society has undertaken consideration of a proposal to institute legal proceedings against this plan which has been set up by the Washington employees of the Home Owners Loan Corporation.

(5) *Opposition of Osteopaths to Socialized Medicine.* Newspapers in Indiana have carried statements that the president of the American Osteopathic Association in a talk made in this state opposed socialized medicine.

(6) *Health Cooperatives in Rural Districts.* Attention of the public press has been turned to this problem within the last few months and stories have been carried stating that "Not a few New England towns have in the past few years adopted the custom of subsidizing physicians."

(7) *Increase in Number of Social Service Workers Being Graduated from Indiana University.* The enrollment this year in the Indiana University training course given in Indianapolis for social service workers has increased over 15 per cent.

State Board of Medical Registration and Examination

Committee informed that Dr. J. T. Oliphant of Farmersburg had been appointed as the new member of the Board. This met the complete approval of the Committee.

Medical Economics

(1) *West Virginia's Plan to Rehabilitate Men on Relief Rolls.* This was brought to the attention of the Committee by Dr. Herman Baker. The Committee went on record stating that it would be willing to cooperate with the State Department of Public Welfare in undertaking a project in Indiana similar to the West Virginia plan.

Venereal Disease Program

(1) Bulletin of the Michigan State Medical Society in regard to the prenuptial physical examination law in Michigan brought to the attention of the Committee. A similar bulletin from the Ohio State Medical Association also was discussed. The program in Indiana has already been brought to the attention of the physicians through THE JOURNAL.

Organization Matters

(1) The Committee was informed that Dr. J. B. Maple of Sullivan has been appointed historian of the Association to succeed Dr. L. G. Zerfas who has resigned.

(2) Dr. Christophel's report of failure to create interest in Pulaski county brought to the attention of the Committee. The Committee felt that this matter should be referred to and discussed by the Council.

Annual Secretaries' Conference

The Committee on Secretaries' Conference has voted to hold this meeting in conjunction with the Northwest Conference in Chicago, and the Committee was informed that Dr. West has offered the use of the auditorium of the A. M. A. and will serve a luncheon to the physicians in Chicago if the meeting is held on the Saturday before the conference.

Group Hospitalization

(1) Rumors that an attempt will be made to change the law so that group hospitalization organizations may be formed in Indiana without meeting the requirements and putting up the cash deposit to meet the Indiana insurance laws brought to the attention of the Committee.

1938 Meeting of American Medical Association at San Francisco, June 13 to 17, 1938

Suggested Indiana-Ohio "special" discussed by the Committee. The executive secretary was instructed to get in touch with the Ohio State Medical Association secretary and find out what ideas he is developing in this matter.

Approval of "The Birth of a Baby"

Upon the motion of Dr. Baker, seconded by Dr. Austin, the moving picture, "The Birth of a Baby," was approved by the Executive Committee for public showing. The executive secretary was instructed to send this information to Fred L. Adair, M.D., chairman of The American Committee on Maternal Welfare, Dr. Warren Cox of the Research Department of Mead Johnson and Company, and Jack H. Skirball, New York City, producer.

Printing of Constitution and By-Laws

Motion made by Dr. VanBuskirk, seconded by Dr. Austin, and carried that 1,000 copies of the new Con-

stitution and By-Laws be printed and distributed to county society secretaries, officers, councilors and members of the House of Delegates. The Executive Committee suggested that letters be sent with the Constitution and By-Laws stating that if additional copies are desired these will be available, and that a similar notice to this effect should be carried in THE JOURNAL.

Cancer Control Committee

Dr. George Dillinger of French Lick appeared before the Committee and requested that a committee to be called the Committee for the Control of Cancer be appointed by the State Association to cooperate with the Women's Field Army of the National Federation of Women's Clubs. Upon the motion of Dr. Clark, seconded by Dr. Van Buskirk, it was suggested that Dr. Baker appoint such a committee and that he be given power to name this committee before January 1, 1938, when his term as president of the State Association starts.

THE JOURNAL

(1) *Solicitation of Non-Members for JOURNAL Subscriptions.* There are 743 physicians in Indiana who are not members of the Association who, according to the records, can be solicited for subscriptions to THE JOURNAL. The Committee authorized solicitation of these physicians to subscribe to THE JOURNAL. Only those physicians against whom there is nothing in the files of the Association are to be sent journals.

(2) *Payment for JOURNAL for Honorary Members.* It was the opinion of the Committee that such journals should be paid for if the honorary members receive them.

(3) *Enlargement of the State JOURNAL to Include Dentists.* Upon the motion of Dr. Austin, the executive secretary was authorized to take this matter up with the officers of the State Dental Society and to report at the next meeting of the Committee.

December 5, 1937.

Meeting called to order at 9:00 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. D. Clark, M.D.; H. M. Baker, M.D.; E. M. Van Buskirk, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: V. K. Harvey, M.D.; secretary, State Board of Health; N. M. Beatty, M.D., chairman, Legislative Committee, and chairman, Convention Arrangements Committee; F. M. Gastineau, M.D., member of Bureau of Publicity.

The monthly statements of Receipts and Expenditures for November for the Association committees and THE JOURNAL were approved.

Reports of the Budget for November for the Association committees and THE JOURNAL were approved.

Membership Report

Number of members November 30, 1937-----	2,978
Number of members November 30, 1936-----	2,817
Gain over last year -----	161
Number of members December 31, 1936-----	2,841

Treasurer's Office

The treasurer reported that arrangements had been made with the George S. Olive and Company to make the annual audit of the books.

1938 Annual Session at Indianapolis

(1) Arrangements are under way to have meeting at the Murat Temple. Detailed report to be ready for mid-winter meeting of the Council. Suggestion made that the breakfast meeting of the House of Delegates could be held at the Athenaeum which is across the street from the Murat Temple. Report made that the Scottish Rite Cathedral would be available only for banquet.

(2) Request of Mr. Carl Nelson of the Indiana Pharmaceutical Association as to what type of scientific ex-

hibit the physicians would want his organization to put on next year brought to the attention of the Committee. This request was to be forwarded to Doctor Culbertson, chairman of the Committee on Scientific Exhibit.

(3) *"Hall of Health."* A report upon the "Hall of Health" public exhibit which was held in connection with the annual meeting of the Wisconsin State Medical Society last fall at Milwaukee was made with a view to the possibility of having a similar display in connection with the state meeting. The Executive Committee requested that further investigation of the matter be made by the State Fair Committee, headed by Dr. Russell Sage, and the Convention Arrangements Committee of which Dr. Norman Beatty is chairman.

(4) *Window displays in leading Indianapolis stores.* Dr. Beatty said that Dr. C. J. Clark had suggested that window displays be carried in the various stores during the week of the state meeting. The theme of these displays should be the contribution of the medical profession to humanity.

Postgraduate

(1) Report made that Dr. Hamilton H. Anderson of the Council of Medical Education and Hospitals of the American Medical Association had made an investigation of graduate education activities in this state. Following his visit to Indianapolis he wrote, "It is very gratifying to learn of the many ways in which various groups in your state attempt to keep practicing physicians informed."

(2) Dr. Baker stated emphatically that he felt that no postgraduate program would be effective until the subject can be taken to the man out in the state rather than having the physician come to Indianapolis. The physician who needs postgraduate work is not the one who will come to Indianapolis but the one who will not come and the one who will take the work only if it is brought to his own door.

Sickness Insurance and Socialized Medicine

(1) *Principles and proposals for medical practice laid down by the "Committee of Physicians."* This subject was again brought to the attention of the Executive Committee which considered in turn a letter from Dr. John Peters, secretary of the "Committee of Physicians," a letter from the American Medical Association in regard to full-time teachers who signed the committee report, a statement of the Board of Trustees of the American Medical Association which appeared in *The Journal of the American Medical Association* and the *State Journal*, a statement of the Council of the Ohio State Medical Association against the principles, a statement of the Vigo County Medical Society against the principles, a report of discussion of this subject at the recent state secretaries' conference at Chicago, a newspaper statement of the committee clarifying its stand in regard to medical organization, a statement favoring the principles and proposals that appeared in the *Nassau Medical News*, the action of the Caduceus Club of Pawtucket, R. I., against the principles and proposals, and a letter from Dr. George Dillinger. After a study of this subject the Committee authorized Dr. Norman Beatty, chairman of the Legislative Committee, to draw up a resolution expressing general opposition to the principles and proposals laid down by the committee of 430. A copy of this resolution was to be sent to each member of the Legislative and Executive Committees for approval and when formally approved a copy of it was to be sent to each county medical society secretary, each councillor, Dr. Olin West of the A. M. A., and Dr. John Peters, secretary of the "Committee of Physicians." This action was taken upon the motion of Dr. Van Buskirk, seconded by Dr. McCaskey.

(2) *The Kilgore letter.* The Executive Committee unanimously decided to ignore in its entirety the Kilgore letter which presented principles slightly different from the "Committee of 430."

(3) A report was made upon the oratorical contest conducted by the Farm Bureau upon the subject of

"Rural Health in America." Indiana contestants were selected at the state meeting of the Farm Bureau held in Indianapolis last month. These contestants, it is understood, will go to Chicago for further elimination trials with competitors from other states, and the winners will compete at the national convention of the Farm Bureau. It was easy to see that the Indiana speakers were very much influenced by the propaganda of the social service workers and advocated the socialization of medicine or what they termed "free medicine."

(4) Report made that Dr. W. U. Kennedy's information in regard to medical services in Europe is considered very valuable by Dr. Olin West.

(5) Latest information in regard to the establishment of the Cooperative Health Association in Washington, D. C., presented to the Committee. Reports from Washington are that at least one additional cooperative group has sprung up. This is in line with the usual experience that whenever one cooperative group springs up, others follow.

Complaint in Regard to Activities of J. R. Scherer

Attention of the Committee was brought to the complaint which Dr. A. M. Mitchell of Terre Haute made concerning the activities of J. R. Scherer and U. G. Lipes of Vigo county. The secretary was instructed to send Dr. Mitchell an additional copy of the report upon the Scherer outfit which was published recently by the Better Business Bureau of Indianapolis in its bulletin.

Veneral Disease Program

(1) Resolutions of the Committee on Syphilis Control presented for consideration of the Executive Committee. These resolutions and the general subject were discussed by the Committee and Dr. Harvey, Dr. Beatty, and Dr. Gastineau who were present at the meeting. Upon the motion of Dr. McCaskey, seconded by Dr. Van Buskirk, the resolutions were approved.

(2) Dr. Harvey spoke of Social Hygiene Day at which time every locality will be urged to concentrate its efforts upon the venereal disease eradication program.

(3) Dr. Harvey spoke of legislation which probably will be needed to carry out the social disease program in Indiana. Among the things he mentioned was the fact that there must be some way to determine legitimate from fly-by-night laboratories, methods devised to determine who is qualified to do laboratory work, and that there should be some changes in the marriage laws making physical examinations before marriage mandatory.

(4) Dr. Harvey stated that the State Board of Health had been requested to lend Board of Health educational pictures upon syphilis and venereal diseases to commercial exhibitors who were showing commercial films. He stated that the Board had adopted a policy of not having any state films used in connection with commercial films as the public would not have discrimination in differentiating between the commercial and the educational films.

(5) Dr. Baker spoke of his intention to enlarge the personnel of the Syphilis Control Committee to include a laboratory man in recognition of the splendid cooperation received from the laboratory men of the state by making the exclusion test possible at a fee which practically every patient should be able to pay.

(6) Dr. Harvey spoke of the fact that 200 laymen who are now serving as local health officers in various communities of Indiana will be replaced by physicians who will serve part-time starting January 1 and that it will be important to have these men fully conversant with the syphilis control campaign as well as other matters pertaining to public health work.

Organization Matters

Letter from Dr. W. B. Christophel, councilor of the Thirteenth District, in regard to the Pulaski County Medical Society situation brought to the attention of the Committee. The Committee authorized the secretary to write to the officers of the Pulaski County Medical Society as suggested by Dr. Christophel.

Annual County Society Secretaries' Conference and Northwest Conference at Chicago, February 12-13, 1938

The following program was approved by the Executive Committee:

Saturday, February 12, 1938

- 10 to 10:30 a. m.—Registration.
 10:30 to 12 m.—Inspection tour of American Medical Association building.
 12 m. to 1 p. m.—Luncheon at American Medical Association building.
 1 to 5 p. m.—Program.
 Evening free.

Sunday, February 13, 1938

Palmer House

- 10 a. m.—Northwest Conference.
 12:30 p. m.—Northwest Conference luncheon. Indiana State Medical Association, host.
 2 to 5 p. m.—Program.
 5 p. m.—Adjournment.

1938 Meeting of the A. M. A. at San Francisco

(1) *Special trains.* The Committee went over in detail the various proposed routes and decided that there should be no Indiana "special" sponsored by the Indiana State Medical Association. All lines and travel agencies soliciting physicians should be asked to take advertising in the State Journal. This action was taken upon the motion of Dr. Clark and unanimously carried by the Committee.

Printing of Constitution and By-Laws

Following the suggestion made at the last meeting of the Executive Committee, an order has been placed for 1,000 copies of the new Constitution and By-Laws to be printed and distributed to county medical society secretaries, councilors, officers and members of the House of Delegates. Each member of the Committee was given a proof of the Constitution and By-Laws and was asked to go over this proof to check errors and make corrections.

Medical Economics

(1) *West Virginia's plan to rehabilitate men on relief rolls.* Report made that Thurman Gottschalk, administrator of the Indiana Department of Public Welfare, would be very pleased to meet with a committee of the Indiana State Medical Association to discuss this subject with a view to instituting such a program in this state if it is thought feasible. Upon the motion of Dr. McCaskey, seconded by Dr. Clark, the correspondence concerning the West Virginia plan and the information of the contact made with Mr. Gottschalk were to be referred to the members of the Liaison Committee with Indiana Crippled Children's Bureau.

(2) *Physicians' incomes.* An article which appeared on the front page of the Indianapolis Star with the headline, "Doctors Best Paid with \$4,850.00 Yearly," brought to the attention of the Committee. The article stated that this was the average annual income of physicians and that doctors were the best paid professional class in America, according to a survey that had been made. The article did not name the source of the survey. Numerous physicians have complained against this article as being grossly unfair.

(4) *Indiana plan of action.* Dr. Frank Gastineau made a short statement before the Committee, at the request of Dr. Baker, president of the Association, in regard to the plan which he and Dr. Baker have worked out to make Indiana medicine take an aggressive rather than an offensive position in the battle against socialized medicine. The plan is to be outlined by Dr. Baker in his article which is to appear on the President's page in the January issue of THE JOURNAL. In short, this plan calls for each county medical society

taking the leadership in all health campaigns that are carried on in each local community, venereal disease control, diphtheria, smallpox, cancer, tuberculosis, etc. The Committee approved the proposed plan for publication in THE JOURNAL.

Cancer Control Committee

Dr. Baker announced that Dr. E. E. Padgett had been appointed chairman of the reorganized Committee on Cancer Control. The committee which was in existence two years was not reappointed last year, its duties being performed by the Publicity Bureau. This committee will serve as the executive committee for the Field Army of the Indiana Federation of Women's Clubs. Dr. Padgett attended the meeting of the Women's Field Army which was held on December 2.

The Birth of a Baby

Letter received from Dr. Fred L. Adair thanking the Executive Committee for its endorsement of "The Birth of a Baby." The Committee feels that its endorsement of this picture should serve Dr. Adair and those sponsoring "The Birth of a Baby" in presenting their case before the moving picture censorship board of Indiana.

Indiana University Psychological Clinics

Report of the work being done by the psychological clinics at Bloomington and at the Medical Center in Indianapolis, which appeared in the Indianapolis Star, brought to the attention of the Committee and referred to the state Committee on Mental Health.

THE JOURNAL

Requests for exchanges. The Committee approved the request of the Indiana Department of Public Welfare that it be sent THE JOURNAL in exchange and it suggested that a check be made in regard to the American College of Chest Physicians which desires to exchange THE JOURNAL, and that the request for exchange of the Noticioso Medico-Mundial be not complied with.

Letters to non-members. Report made to the Committee that letters and sample copies of the December JOURNAL were mailed to 743 non-members. First returns from these letters have been very encouraging. Report will be made at the next meeting of the Committee.

Contract for printing The Journal. The Committee formally approved letting THE JOURNAL printing contract to the C. E. Pauley Printing Company upon the motion of Dr. VanBuskirk, seconded by Dr. Baker.

Letter to Evans Printing Company. Upon the motion of Dr. Clark, seconded by Dr. VanBuskirk, the managing editor of THE JOURNAL was instructed to write a letter to the Evans Printing Company, expressing appreciation of the Committee for the splendid cooperation received during the past two years from the Evans Company in publishing THE JOURNAL and stating that the services rendered by the company were most satisfactory.

Number of pages published in The Journal. Since the Executive Committee has had charge of the business affairs of THE JOURNAL the number of pages published per volume has been as follows:

Year	Reading Pages	Advertising Pages	Total	Per Cent Advertising
1933	634	358	992	36.1
1934	604	408	1,012	40.3
1935	712	428	1,140	37.5
1936	680	472	1,152	41.0
1937	674	514	1,188	43.0

Upon the motion of Dr. McCaskey, seconded by Dr. Baker, a vote of thanks was rendered by the Committee to Dr. Clark for his services in the past two years as president-elect and president of the Indiana State Medical Association. Dr. Clark expressed his appreciation of the

motion and said that he had enjoyed the meetings and will miss meeting with the Committee in the future.

The next meeting of the Committee was set for Saturday evening, January 15, at 6 o'clock at the Columbia Club, the night before the midwinter Council meeting.

BUREAU OF PUBLICITY

October 26, 1937.

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Release entitled, "Protecting the Public," approved for publication in Thursday afternoon papers, November 4, 1937.

Medical meetings:

Nov. 3—Thirteenth District Medical Society, Mishawaka, Ind. Speakers obtained.

Nov. 3—Seventh District Medical Society, Danville, Ind. Speakers obtained.

The secretary was instructed to send the following letter to Dr. L. G. Zervas, the retiring historian of the State Association:

"Your letters of September 11 to Doctor Wishard and to Mr. Hendricks were brought to our attention at the meeting of the Bureau of Publicity on October 19.

"The Bureau regrets very much to hear that you will not be able to continue as historian of the Association and at this time expresses its deep appreciation for the outstanding work you have done as historian during the past four years.

"We wish you great success and we will be most pleased to hear from you at any time you have a few moments to write, for we know you are having many wonderfully interesting and worthwhile experiences."

A medical supplement which appeared in the *Detroit Free Press* at the time of the Michigan State Medical Society meeting was brought to the attention of the Bureau. The Bureau felt that it would be well to have such a supplement in one or more of the Indianapolis newspapers during the eighty-ninth annual session of the Indiana State Medical Association, which will be held in Indianapolis October 4, 5 and 6, 1938. The Bureau instructed the secretary to invite the president of the Indianapolis Medical Society to be present at the next meeting of the Bureau in order that a similar project might be discussed for the Indianapolis meeting.

A member of the Bureau spoke of the splendid articles upon various medical subjects which are appearing at the present time in *Fortune*. The Bureau instructed the secretary to write to the editors of *Fortune* magazine and compliment them upon the fine presentation of medical subjects.

A program of research on medical education in Indiana to be carried out by the historian of the State Association was suggested. This study is to cover the history of medical education in Indiana in general, showing the gradual development of pre-medical training and the necessity of having a cultural background of broad general education before professional instruction is undertaken.

November 11, 1937.

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Release entitled, "Diphtheria Record Threatened," approved for publication in Wednesday papers, November 24.

Medical meetings:

Nov. 3—Thirteenth District Medical Society, Mishawaka.

Nov. 3—Seventh District Medical Society, Danville.

Report made on the conference with the newly appointed historian of the Association. Suggestion made that a letter be written by the Bureau of Publicity to the historian stating that all papers and material gathered in this historical work are the property of the State Medical Association. The chairman of the Bureau suggested that the historian try to develop in his articles the history of medical education in Indiana. There have been some twenty-three or twenty-four medical schools in the state. It should be the duty of the historian to trace the development of these schools and their influence upon the profession and the public. Coincident with this work should be the tracing of the development of medical societies throughout the state and the influence of medical laws starting with the original law governing medical practice which was passed by the legislature in 1816.

The Bureau was of the opinion that a medical supplement by a local newspaper during the next annual session of the State Association should not be sponsored by the medical profession as such a supplement would mean that certain commercial companies perhaps would be pressured to take advertising space.

Notification of the Second National Conference on Educational Broadcasting which is to be held in Chicago November 29 to December 1 brought to the attention of the Bureau. The Bureau felt that this field of educational broadcasting is one which should be thoroughly surveyed by the medical profession.

Regulations of the Medical Society of Milwaukee County in regard to publicity brought to the attention of the Bureau. These regulations were to be read by the members of the Bureau and a report made upon them at the next meeting.

The Better Business Bureau Bulletin of October containing an article in regard to the investigation of the Ritholz National Optical Stores was brought to the attention of the Bureau.

Letter received by the Bureau stating that the Woman's Auxiliary of the Indianapolis Medical Society might desire speakers at coming meetings. The Bureau will be very pleased at any time to have the Woman's Auxiliary call upon it for speakers.

The Bureau asked that the secretary obtain a map from the secretary of the State Board of Health in regard to the diphtheria outbreak in the state. This was to be made available at the next meeting of the Bureau and the secretary of the State Board of Health was to be asked to attend the next meeting of the Bureau.

November 18, 1937.

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Release, "Diphtheria Record Threatened," reviewed for final approval and authorized for publication in Wednesday, November 24, papers.

The secretary of the State Board of Health conferred with the Bureau upon the diphtheria threat and presented to the Bureau maps, statistics, and graphs showing the counties where cases have occurred, and a comparative diphtheria record of this year and last year for the state. The Bureau was of the opinion that the secretary of the State Board of Health should prepare a statement in regard to this subject for publication in *THE JOURNAL*.

Release, "Smog Sickness," approved for publication in Monday, November 29, papers.

Reports on medical meetings:

Nov. 16—Twelfth District Medical Society, Fort Wayne. "Suggestions from the Executive Committee

of the State Association in regard to Plans and Proposals for Medical Care." (210 present.)

Nov. 17—Parke-Vermillion County Medical Society, Clinton. "Control of Syphilis." (12 present.)

Special medical supplement of Rocky Mountain News brought to the attention of the Bureau. The Bureau still feels that it would be a mistake to sponsor a special medical supplement in one of the Indianapolis newspapers.

Regulations of the Medical Society of Milwaukee County (Wisconsin) in regard to publicity brought to the attention of the Bureau.

Historical sketch in regard to Dr. William Ralston who was born in 1785 and who was a pioneer physician in southern Indiana was brought to the attention of the Bureau of Publicity. The Bureau suggested that this be forwarded to the historian of the State Association.

Hand bill circulated by the merchants of a town in northern Indiana brought to the attention of the Bureau of Publicity as physicians had been asked to contribute to such a campaign and in return have their names printed upon the campaign hand bill. The physician who brought this to the attention of the Bureau stated that four of the six physicians in this town had taken a stand against the use of their name on the hand bill and asked for an opinion of the Bureau in this matter. The Bureau wrote the following letter in regard to this matter:

"We have yours of November 14 enclosing a handbill about a money-making scheme involving a game of chance.

"You ask what the attitude of the profession should be in regard to this. We infer that you desire to know whether professional names should appear on such a list. Undoubtedly no."

The following letter was received from *Fortune* magazine in answer to a communication from the Bureau complimenting this publication upon its fine presentation of medical subjects that have appeared in it from time to time:

"Thank you for your splendid letter of November 2, in which you inform us that your Bureau, speaking for the three thousand members of the Indiana State Medical Association, heartily endorses our policy of presenting medical articles in *Fortune*, as a public contribution in the field of individual and public health.

"The Editors of *Fortune* are well aware of the magnitude of their task, in attempting to present material of a medical nature to the lay public, in a manner which will hold the reader's interest, and at the same time retain the essential quality of accuracy. In our presentations, we strive for high qualities of ratiocination and workmanship, and safeguard the accuracy of the material by having all articles of a medical nature, carefully checked by competent medical authorities before they are published in *Fortune*.

"When we receive such a fine commendation as this one you have so courteously extended, we feel that our efforts are amply rewarded. We placed a copy of your letter on our bulletin board, so that all members of our staff might share our pleasure in its contents.

"Please be assured that we deeply appreciate your official cognizance and commendation of our medical presentations.

"We shall count it a privilege, in the future, to bring to your attention further articles appearing in *Fortune*, which may be of particular interest to you."

LOCAL SOCIETY REPORTS

BOONE COUNTY MEDICAL SOCIETY met at Lebanon, at the Ulen Country Club, December seventh, at noon. A business meeting with election of officers for 1938 resulted as follows:

President, O. C. Higgins, Lebanon.
Vice-president, L. S. Bailey, Zionsville.
Secretary-treasurer, C. G. Kern, Lebanon.

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CARROLL COUNTY MEDICAL SOCIETY members met at Delphi, December ninth. Dr. H. O. Mertz, of Indianapolis, was the guest speaker; his subject was "Prostatic Disease." Officers of the Carroll County Society for 1938 are:

President, George W. Wagoner, Burrows.
Vice-president, Arthur Richter, Flora.
Secretary-treasurer, E. H. Brubaker, Flora.

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CLARK COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Ernest P. Buckley, Jeffersonville.
Vice-president, George L. Regan, Sellersburg.
Secretary-treasurer, Giles E. Mowrer, Jeffersonville.

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CLINTON COUNTY MEDICAL SOCIETY members met at Frankfort, December second, to hear Dr. Robert M. Moore talk on "Cardiac Diagnosis."

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DAVIESS-MARTIN COUNTY MEDICAL SOCIETY held a meeting at Washington, November twenty-third, with Dr. George Garceau, of Indianapolis, as principal speaker. Dr. Garceau's subject was "Fractures of the Ankle and Elbow." Attendance numbered twenty.

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DEARBORN-OHIO COUNTY MEDICAL SOCIETY held its annual meeting with the dental societies of Dearborn and Ohio counties at the Dillsboro Sanitarium, November seventeenth. Dr. Louis Segar, of Indianapolis, was the principal speaker, his subject being "Dental Phases of Child Health."

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DEARBORN-OHIO COUNTY MEDICAL SOCIETY officers for 1938 are:

President, J. K. Jackson, Aurora.
Vice-president, C. N. Manley, Rising Sun.
Secretary-treasurer, J. C. Elliott, Guilford.

* * *

DECATUR COUNTY MEDICAL SOCIETY members met at Greensburg, November seventeenth. Dr. Fred Denny presented a paper on "Ear, Nose and Throat Conditions Facing the General Practitioner."

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DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY members held a meeting at Muncie, in the Hotel Roberts, November sixteenth, with twenty members present. Drs. J. Young and Charles Botkin, members of the legislative committee, reported upon a meeting held at Connersville with Hon. Finlay Gray, who stated that he would oppose any adverse medical legislation proposed in this session of Congress.

Officers for 1938 were elected as follows:
President, J. H. Bowles, Muncie.
President-elect, J. C. Silvers, Muncie.
Secretary-treasurer, D. A. Covalt, Muncie.

DUBOIS COUNTY MEDICAL SOCIETY held a meeting at Jasper, December third. This was a joint meeting with the members of the Auxiliary. A sound film entitled "Science and Modern Medicine" was shown. Officers for 1938 were elected as follows:

President, H. C. Knapp, Huntingburg.
Vice-president, Paul J. Blessing, Jasper.
Secretary-treasurer, G. A. Held, Holland.

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ELKHART COUNTY MEDICAL SOCIETY met in the Y. W. C. A. at Elkhart, November twenty-fourth, for a dinner meeting, with Dr. Joseph L. Brennemann, of Chicago, as guest speaker. Dr. Brennemann's subject was "Atelec-tasis, Bronchiectasis, Emphysema and Allied Conditions in Childhood." Attendance numbered sixty-four.

At the December eighth meeting, officers for 1938 were elected:

President, G. W. Grossnickle, Elkhart.
Vice-president, H. P. Bowser, Goshen.
Secretary-treasurer, S. T. Miller, Elkhart.

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FLOYD COUNTY MEDICAL SOCIETY held a meeting at New Albany, November nineteenth, to hear Dr. John F. Habermel, of New Albany, discuss "Perforations in the Abdomen." Attendance numbered fifteen.

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY held a meeting in the Chamber of Commerce Building, December seventh. Dr. Frank C. Mann of the Mayo Clinic was the principal speaker, his subject being "The Physiologic and Pathologic Reactions of the Liver." Attendance numbered seventy-five.

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FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY members met at Mudlavia Sanitarium, Kramer, December first, for a dinner meeting. Dr. Oliver Greer, of Indianapolis, spoke on "Riley Hospital and Public Welfare Work." Attendance numbered sixty. This was a joint meeting with the Rotary Club of Attica and welfare board members of Fountain and Warren counties.

Officers of this society for 1938 are:
President, E. E. Johnson, Covington.
Vice-president, L. J. Maris, Attica.
Secretary-treasurer, A. L. Spinning, Covington.

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FULTON COUNTY MEDICAL SOCIETY held a meeting at Rochester, November fifth. Dr. Edgar F. Kiser, of Indianapolis, talked on "Hypertensive Heart Disease." Dr. and Mrs. Milton Leckrone were hosts for a banquet at the Woodlawn Hospital.

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GIBSON COUNTY MEDICAL SOCIETY held a meeting at the Princeton Methodist Hospital December 13. Dr. William S. Ehrlich, of Evansville, talked on "Urinary Infections." Moving pictures on eclampsia were shown. Officers for 1938 were elected as follows:

President, J. L. Morris, Princeton.
Vice-president, R. S. McElroy, Princeton.
Secretary-treasurer, O. M. Graves, Princeton.

GRANT COUNTY MEDICAL SOCIETY members held a meeting at the Spencer Hotel in Marion, October twenty-eighth. Dr. A. C. Corcoran, of Indianapolis, talked on "Tests for Kidney Function." Twenty-seven members were present. Dr. Max Ganz of Marion was elected to membership in the society.

At the November twenty-third meeting of the society, officers for 1938 were elected as follows:

President, L. D. Holliday, Marion.
Vice-president, R. E. LeMaster, Marion.
Secretary-treasurer, Harold E. List, Marion.

* * *

HANCOCK COUNTY MEDICAL SOCIETY members held a dinner meeting November fifteenth at Fortville. Dr. Gordon Batman, of Indianapolis, talked on "Abnormalities of Bones in Children and Adults."

* * *

HOWARD COUNTY MEDICAL SOCIETY held its December meeting at the Columbia Club in Indianapolis, December sixteenth.

* * *

HUNTINGTON COUNTY MEDICAL SOCIETY members held a meeting at the Hotel LaFontaine in Huntington, December seventh. Officers for 1938 were elected:

President, Grover M. Nie, Huntington.
Vice-president, A. M. Hasewinkle, Markle.
Secretary-treasurer, J. M. Hicks, Jr., Huntington.
Principal speaker on the program for this meeting was Dr. Karl Beierlein of Fort Wayne.

* * *

INDIANAPOLIS MEDICAL SOCIETY held its November thirtieth meeting at the Indianapolis Athletic Club. Papers were presented by Dr. Eugene B. Mumford and Dr. A. F. Weyerbacher; discussants were Dr. Charles F. Thompson and Dr. William E. Tinney.

At the December fourteenth meeting, a symposium on syphilis was presented with the following five papers: (1) History of the Movement, by Dr. A. F. Weyerbacher; (2) Survey of the Local Situation, by Dr. F. M. Gastineau; (3) Proposals as the Result of the Local Survey, by Dr. Norman Beatty; (4) State Board of Health Program, by Dr. Verne K. Harvey; and (5) City Health Board Program, by Dr. Herman Morgan.

Officers of the Indianapolis Medical Society for 1938 are:

President, Robert M. Moore.
President-elect, Herman G. Morgan.
Vice-president, Robert M. Dearmin.
Secretary, Howard B. Mettel.
Treasurer, Gerald E. Kempf.

* * *

JACKSON COUNTY MEDICAL SOCIETY officers for 1938 are:

President, W. Durbin Day, Seymour.
Vice-president, G. R. Gillespie, Brownstown.
Secretary-treasurer, G. H. Kamman, Seymour.

* * *

JASPER-NEWTON COUNTY MEDICAL SOCIETY members met at the Brook Hotel, Brook, Indiana, December second, for a dinner meeting, with Dr. W. G. Pippenger as host. Dr. James Pebworth, of Indianapolis, talked on "Sinusitis in General Practice." Attendance numbered eighteen. Officers for 1938 are:

President, C. E. Johnson, Rensselaer.
Vice-president, A. R. Kresler, Rensselaer.
Secretary-treasurer, W. C. Mathews, Kentland.

JAY COUNTY MEDICAL SOCIETY met at the Country Club at Portland, December third. Dr. J. O. Ritchey, of Indianapolis, was the principal speaker, his subject being "Respiratory Infections."

Officers for 1938 are:

President, F. E. Keeling, Portland.

Vice-president, W. D. Schwartz, Portland.

Secretary-treasurer, B. M. Taylor, Portland.

* * *

JEFFERSON COUNTY MEDICAL SOCIETY members held a meeting November twenty-second in honor of Dr. George E. Denny, who is retiring from his private practice to take up duties as superintendent of the Muscatatuck Colony for the Feeble-Minded at Butlerville.

* * *

JOHNSON COUNTY MEDICAL SOCIETY held a meeting at Franklin, December eighth, with Dr. Lacey Shuler, of Indianapolis, as principal speaker. Dr. Shuler talked on "Fractures." Officers elected for 1938 are:

President, Frank Albertson, Trafalgar.

Vice-president, Florence Blackford, Franklin.

Secretary-treasurer, W. L. Portteus, Franklin.

* * *

LAKE COUNTY MEDICAL SOCIETY met for the annual dinner meeting, December ninth, at Phil Smidt's. A. Schultz, associate of Lew Fonseca, American League ball player and once manager of the Chicago White Sox, was guest speaker. Officers of the society for 1938 are:

President, C. M. Jones, Whiting.

President-elect, G. L. Verplank, Gary.

Secretary-treasurer, E. M. Shanklin, Hammond.

* * *

LA PORTE COUNTY MEDICAL SOCIETY members held a meeting in La Porte at the American restaurant, November eighteenth. A moving picture on obstetrics was shown under the sponsorship of the Indiana State Board of Health.

* * *

MARSHALL COUNTY MEDICAL SOCIETY members met at Plymouth, December first, for a luncheon meeting. Dr. George Rosenheimer, of South Bend, discussed "Anesthesia and the General Practitioner." Nineteen members were present. Officers elected for 1938 are:

President, Fred Perry, Plymouth.

Vice-president, W. D. Buchanan, Bremen.

Secretary-treasurer, L. W. Vore, Plymouth.

* * *

MONTGOMERY COUNTY MEDICAL SOCIETY held a meeting at the Culver Hospital in Crawfordsville, November eighteenth. Dr. J. H. Warvel and Dr. M. R. Shafer, of Indianapolis, talked on "Protamine Insulin." Number present was twenty-three.

* * *

MORGAN COUNTY MEDICAL SOCIETY members held a meeting at the Memorial Hospital in Martinsville, November seventeenth. Two motion pictures, entitled "Diagnosis of Urologic Conditions" and "Modern Methods of Anesthesia," were shown.

* * *

MUNCIE ACADEMY OF MEDICINE members met November thirtieth at the Hotel Roberts to hear Dr. Max Peet of the University of Michigan talk on "Surgical Treatment of Hypertension." More than 200 physicians and their wives and guests attended the meeting.

NOBLE COUNTY MEDICAL SOCIETY held a meeting at Cromwell, December seventh, with Dr. Robert W. Wilkins, of Fort Wayne, as speaker. Dr. Wilkins' subject was "Eclampsia and Post Partum Hemorrhage." This was the annual dinner meeting and election of officers, which resulted as follows:

President, F. W. Messer, Kendallville.

Vice-president, A. J. Rarick, Cromwell.

Secretary-treasurer, W. F. Carver, Albion.

* * *

NORTHEASTERN INDIANA ACADEMY OF MEDICINE met at the Kendall Hotel, Kendallville, October twenty-eighth, to hear Dr. Arthur E. Mahle, of Chicago, talk on "Recent Advances in Medical Management of Peptic Ulcer."

* * *

OWEN COUNTY MEDICAL SOCIETY members met at Spencer, November nineteenth. Drs. Yocum and Pierson presented case reports.

* * *

PARKE-VERMILLION COUNTY MEDICAL SOCIETY held a meeting at the Vermillion County Hospital in Clinton, November seventeenth, with Dr. Frank Gastineau, of Indianapolis, as principal speaker. Dr. Gastineau talked on "Syphilis," after which there was a round table discussion of the subject.

* * *

PIKE COUNTY MEDICAL SOCIETY members met at the office of Dr. A. R. Logan in Petersburg, December eighth, for election of officers for 1938. They are:

President, T. R. Rice, Petersburg.

Vice-president, D. E. Taylor, Velpen.

Secretary-treasurer, A. R. Logan, Petersburg.

* * *

PORTER COUNTY MEDICAL SOCIETY met at Valparaiso, November thirtieth. Dr. William E. Adams, of Chicago, presented a paper on "The Present Scope of Surgery With Some of Its Recent Advances in Treatment of Diseases of the Chest." A motion picture on "Malaria" also was shown to the sixteen members present.

* * *

POSEY COUNTY MEDICAL SOCIETY members met at the Tavern Inn in New Harmony, December ninth, for a business session and election of officers for 1938. They are:

President, H. E. Ropp, New Harmony.

Vice-President, H. C. Rininger, New Harmony.

Secretary-treasurer, W. E. Jenkinson, Mount Vernon.

At this meeting it was decided to change the time of the meeting from the second Thursday of each month to the second Tuesday of each month except June, July, and August. It was also decided to sponsor a county-wide tuberculin testing program in the schools.

* * *

PUTNAM COUNTY MEDICAL SOCIETY met at Greencastle, November eighteenth, with Dr. Robert M. Moore, of Indianapolis, as principal speaker. Dr. Moore's subject was "Remarks on Cardiac Diagnosis and Therapy."

* * *

RUSH COUNTY MEDICAL SOCIETY held a meeting at the Lollis Hotel in Rushville, November sixteenth, with Dr. Gerald Kempf, of Indianapolis, as principal speaker. Dr. Kempf's subject was "Sulfanilamide."

SCOTT COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Marvin McClain, Scottsburg.
Secretary-treasurer, J. P. Wilson, Scottsburg.

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY members met at the Jefferson Plaza in South Bend, November twenty-third, with forty-four members present. Drs. Sandoz, Blackburn, R. Hoffman, Bosenbury and Pauszek presented a symposium on "Lues."

* * *

SHELBY COUNTY MEDICAL SOCIETY members and guests attended the annual dinner meeting and election of officers in Shelbyville, December first. Officers were elected as follows:

President, W. R. Tindall, Shelbyville.
Vice-president, M. J. Maisoll, Morristown.
Secretary-treasurer, J. A. Davis, Flat Rock.

* * *

SPENCER COUNTY MEDICAL SOCIETY officers for 1938 are:

President, J. C. Glackman, Rockport.
Vice-president, E. D. Ehrman, Rockport.
Secretary-treasurer, V. V. Schriefer, St. Meinrad.

* * *

SULLIVAN COUNTY MEDICAL SOCIETY officers for 1938 are:

President, M. H. Bedwell, Sullivan.
Vice-president, C. F. Briggs, Sullivan.
Secretary-treasurer, J. B. Maple, Sullivan.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY officers for 1938 are:

President, O. E. Griest, Lafayette.
Vice-president, R. A. Flack, Lafayette.
Secretary, J. C. Burkle, Lafayette.
Treasurer, Charles Hupe, Lafayette.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY members met at the Lafayette Country Club December 14 for the annual dinner meeting, with fifty in attendance. Reports of various committees and delegates were heard.

* * *

WABASH COUNTY MEDICAL SOCIETY met at the Wabash County Hospital, December first, for election of officers. Sixteen members were present. Officers for 1938 are:

President, R. M. LaSalle, Wabash.
Vice-president, C. E. Cook, North Manchester.
Secretary-treasurer, G. W. Seward, North Manchester.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY members held a meeting at Reid Memorial Hospital in Richmond, December ninth, for the annual business meeting and election of officers. Attendance numbered thirty. Officers elected are:

President, Harry P. Ross, Richmond.
Vice-president, Frank Coble, Richmond.
Secretary-treasurer, Gayle J. Hunt, Richmond.

Books

BOOKS RECEIVED

A METHOD OF ANATOMY. Descriptive and Deductive. By J. C. Boileau Grant, M.C., M.B., Ch.B., F.R.C.S. (Edin.) Professor of Anatomy in the University of Toronto. 650 pages with 564 illustrations; cloth. Price, \$6.00. William Wood & Co., Baltimore, 1937.

* * *

INTERNATIONAL CLINICS. Volume IV. 47th series. Edited by Louis Hamman, M.D., visiting physician, Johns Hopkins Hospital, Baltimore. J. B. Lippincott Company, Philadelphia, 1937.

* * *

THE ENDOCRINES IN THEORY AND PRACTICE. Articles Republished from the British Medical Journal. 278 pages. Cloth. Price P. Blakiston's Son and Co., Inc., Philadelphia, 1937. * * *

* * *

CONCEPTS AND PROBLEMS OF PSYCHOTHERAPY. By Leland E. Hinsie, M.D., Professor of Clinical Psychiatry, College of Physicians and Surgeons, Columbia University; Assistant Director, New York State Psychiatric Institute and Hospital. 198 pages. Cloth. Price, \$2.75. Columbia University Press, New York City.

* * *

SURGICAL ANATOMY OF THE HEAD AND NECK. By John Finch Barnhill, M.D., F.A.C.S., LL.D., formerly professor of otolaryngology in the Indiana University School of Medicine. Emeritus Professor of Surgery of the Head and Neck in that school. Honorary Professor of Anatomy, University of Southern California School of Medicine. Introduction by Paul S. McKibben, Professor of Anatomy in the School of Medicine, University of Southern California. 921 pages with numerous illustrations. Cloth. Price, \$20.00. William Wood and Company, Baltimore, 1937.

* * *

TOXICOLOGY. By William D. McNally, A.B., M.D., Assistant Professor of Medicine, Lecturer in Toxicology, Rush Medical College, University of Chicago; attending toxicologist, Presbyterian Hospital; formerly toxicologist to the Coroner of Cook County, Chicago. 1022 pages. Cloth. \$10.00. Industrial Medicine, 540 N. Michigan Avenue, Chicago.

BOOK REVIEW

TREATMENT BY DIET. By Clifford J. Barborka, B.S., M.D., Department of Medicine, Northwestern University Medical School, Chicago; formerly consulting physician, The Mayo Clinic. Third edition, revised. Illustrated, 642 pages. Cloth binding. \$5.00. J. B. Lippincott Company, Philadelphia, 1937.

The third edition of Barborka's work follows closely along the lines of its predecessors, and it is a thoroughly practical book on dietetics for the use of the general practitioner. His statements are specific and his presentation of the relation of the various food elements including the vitamins and the minerals is entirely up to date. The book can be enthusiastically recommended as an addition to the physician's library.

COUNCIL-ACCEPTED PRODUCTS

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories—

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 Ampoules Sodium Cacodylate-Abbott, 0.097 Gm. ($\frac{1}{2}$ grains) 1 cc.
 Ampoules Sodium Cacodylate-Abbott, 0.2 Gm. (3 grains) 1 cc.
 Ampoules Sodium Cacodylate-Abbott, 0.324 Gm. (5 grains) 1 cc.
 Ampoules Sodium Cacodylate-Abbott, 0.454 Gm. (7 grains) 1 cc.
 Ampoules Sodium Cacodylate-Abbott, 0.975 Gm. (15 grains) 2 cc.

Gilliland Laboratories, Inc.—

- Gas Gangrene Antitoxin, Concentrated and Refined.
 Tetanus-Gas Gangrene Antitoxin, Concentrated and Refined.
 Antimeningococcic Serum, Concentrated and Refined.
 Rabies Vaccine (Modified Semple Method).

Lederle Laboratories—

Aminophyllin-Lederle—

- Ampuls Solution Aminophyllin-Lederle, 0.24 Gm., 10 cc.
 Ampuls Solution Aminophyllin-Lederle, 0.48 Gm., 2 cc.
 Tablets Aminophyllin-Lederle, 0.1 Gm. ($\frac{1}{2}$ grains).

Paul-Lewis Laboratories, Inc.—

Aminoacetic Acid-Paul-Lewis.

Rare Chemicals, Inc.—

Salysal—

- Salysal Tablets, 5 grains (0.3 Gm.).

E. R. Squibb & Sons—

- Tablets Sulfanilamide-Squibb, $7\frac{1}{2}$ grains.

Frederick Stearns & Co.—

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John Wyeth & Brother, Inc.—

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ABSTRACTS

HEALTH EDUCATION AND HEALTH SERVICE IN SCHOOLS:
FROM THE POINT OF THE EDUCATOR

JAMES FREDERICK ROGERS, Washington, D. C. (*Journal A. M. A.*, Sept. 11, 1937), states that the beginning in health services was brought to pass after much effort by a public health official who was himself a physician. It was chiefly a police and a protective, and not an educative, measure. In other words it was a service, but it was a service to education in that it reduced absenteeism on account of illness and improved the condition of those who had been plagued, while present, by itch mites, head lice and other signs of insanitation. Educators had long been more or less concerned over the child with poor vision and the deafened pupil and had sometimes asked the parents to consider the need of seeing a physician. The purpose of the health service is not merely to find defects or diseases but to get something done about them. The teacher is an important agent in the school health service and, as Alcott mentioned, she should be better trained for this service. As a prominent school health officer remarked recently, "the teacher is the keystone of

Continued on page XXIV

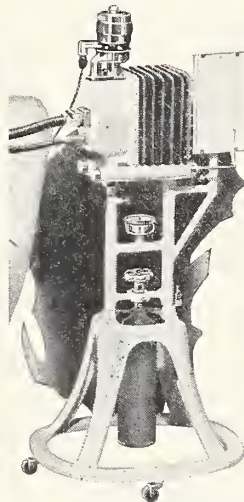
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ABSTRACTS

Continued from page XXIII

medical inspection." The teacher is the daily examiner, who is as important as the periodic examiner. In the rapid shift from the isolation of communicable disease to attempts to improve bodily mechanisms, the physician has only to be educational. To be educational he will need to take the parent into his confidence, and in so doing the medical examiner himself may learn something. He may also educate himself by study of the results of his own work. It is not educational and it is a waste of time to attempt to do too much, and one needs to be conservative in conclusions and persistent in getting something done about them. It is a part of education to see that the family physician is given the place he deserves in the social scheme. He should be the periodic examiner if possible. On the other hand, the physician should reciprocate by doing his utmost to provide treatment of the indigent. The director of the school health service needs to be educated for making the most of his opportunities both for service and for study, in order that his service may be more economical, more effective and more educational.

COMMUNICABLE DISEASE CONTROL IN PRIVATE PRACTICE

Physicians who elect to immunize children against smallpox, diphtheria, scarlet fever, pertussis and typhoid are confronted by the practical problem of deciding when to administer each prophylactic procedure. Chester A. Stewart and Erling S. Platou, Minneapolis (*Journal A. M. A.*, Nov. 6, 1937), suggest that smallpox vaccinations and pertussis inoculations be performed under the age of 6 months and that immunizations against diphtheria, scarlet fever and typhoid be administered in the following twelve or more months. During the past three years they have inoculated 335 children with Sauer's pertussis vaccine, in most instances between the ages of 3 and 12 months and in the recommended total dose of 8 cc. An average of one and three-tenths years has elapsed since this series was inoculated, and in this interval two members of the group had pertussis, eleven and fourteen months after immunization, respectively. In one instance the disease was of moderate severity, and in the other case it was rather mild. During the past six years they have administered 135,000 or more skin test units of Dick's scarlet fever toxin to each of a series of 526 children. When the toxin was given in five separate doses disturbing reactions, which included vomiting, urticarial and scarlatiniform rashes, joint pains, fever and soreness of the arm were reported with considerable frequency. Although various methods were used to avoid these disturbances, their incidence did not decline appreciably until the plan of giving the toxin in ten semiweekly or weekly half doses was tried. Parents generally feel that the avoidance and the attenuation of the reactions which may attend scarlet fever immunization more than compensate for the inconvenience of five extra visits to the office. Since they administered Dick's scarlet fever toxin to this series of 526 children, an average postinoculation period of two and seven-tenths years has elapsed, and in this interval four members of the group had a mild form of scarlet fever. Carefully controlled Schick tests applied in 1936 to 3,205 freshmen at Minnesota University with an average age of 18 years yielded positive reactions in 70.1 per cent of the group. It seems quite obvious that the practice of administering protective inoculations against diphtheria should be greatly increased. Evidence which indicates that the immunity to diphtheria produced by inoculating children during a decade characterized by a low local prevalence of the disease tends to persist at a satisfactory level is provided by the results of a survey

Continued on page XXVI

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSIS B₁

● Apparently mild vitamin B₁ deficiency in humans is not characterized by very definite or entirely specific symptoms. While such a condition may be attended by anorexia, hypotonicity of the bowel, indigestion, vague pains and malaise, latent avitaminosis B₁ hardly presents a picture which is favorable to its early clinical detection. However, there are two procedures which may be employed when this type of avitaminosis is suspected.

The first procedure (1a) depends upon the nature of the response to administration of pure vitamin B₁. The second procedure, which has been more widely applied, makes use of the Cowgill formula for calculation of vitamin B₁ requirement. By consideration of the actual vitamin B₁ intake and the calculated vitamin B₁ requirement in any specific instance, the probability of mild avitaminosis B₁ may be evaluated (1b).

It is difficult to estimate the frequency of mild vitamin B₁ deficiencies in the United States. However, until such information is at hand, it is not illogical to suggest that latent avitaminosis B₁ must be regarded as an active possibility in some cases which may come to the attention of the medical practitioner. Fortunately, several factors

are operative which give assurance that eventually the incidence of latent avitaminosis B₁ will be reduced to a minimum.

First, those concerned with human nutrition have today more definite information concerning quantitative human vitamin requirements than ever before in history (2).

Second, every passing year brings marked progress in education of the layman to the necessity of a completely "protective" diet. The control of the latent avitaminoses is, in large part, dependent upon proper food selection and correct formulation of the diet by the layman consumer.

In the establishment of dietary regimes which will be protective against vitamin deficiencies, commercially canned foods may play an important part. Several hundred canned foods are available upon the American market at all seasons of the year. Nutritional research has shown (3) that modern canned foods retain in good degree the vitamin B₁ contents of the raw materials from which they were prepared. This great class of foods—available to all consumers regardless of economic status—will contribute substantially to the alleviation and prevention of latent avitaminosis B₁ in this country.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

1a. 1935. J. Am. Med. Assn. 105, 1580.
b. 1934. The Vitamin B Requirement of Man, G. R. Cowgill, The Yale University Press, New Haven.

2. 1937. J. Am. Diet. Assn. 13, 195.

3. 1936. J. Nutrition 11, 383.
1934. Ibid. 8, 449.
1932. Ibid. 5, 307.
1932. Ind. Eng. Chem. 24, 457

This is the thirty-second in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.




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DO YOU have anything that you want to sell or trade? If so, send it to this column. No charge for this service to members in good standing of the Indiana State Medical Association. Limit fifty words. Send your copy to Commercial Announcements Department, THE JOURNAL, 1021 Hume Mansur Building, Indianapolis.

ABSTRACTS

Continued from page XXIV

of 215 Minneapolis children made at the end of an average interval of six and seven-tenths years after they had been rendered negative to the Schick test by inoculations. When the follow-up tests were read on the fourth day after their application, 14.9 per cent of the children presented some degree of erythema. Of greater significance is the observation that 85.1 per cent of the group of 215 adequately immunized children failed to react to Schick tests applied at the end of an average postinoculation period of six and six-tenths years. This fact is interpreted as evidence that the immunity to diphtheria produced in children by inoculations administered during an era characterized by a low morbidity rate for diphtheria usually persists for several years at a satisfactory level. Although tuberculosis is a preventable disease, its control is nevertheless difficult. The control of tuberculosis is contingent exclusively on taking advantage of the inability of the causative agent of the disease to perpetuate itself and to survive through successive generations of the human race if the transmission of tubercle bacilli from person to person is prevented. The promotion of comprehensive programs of control designed to identify human disseminators of tubercle bacilli requires the cooperation of physicians engaged in private practice, who obviously are in an excellent position to survey systematically the personnel of numerous household units.

URINARY ANTISEPSIS: HISTORICAL REVIEW AND PRESENT EVALUATION: CHAIRMAN'S ADDRESS

Henry W. E. Walther, New Orleans (*Journal A. M. A.*, Sept. 25, 1937), states that no ideal urinary antiseptic for internal use has yet been found. No single bactericide, when taken by mouth, will destroy all bacteria in the urinary tract. The physical and chemical problems involved are so complex that it is doubtful whether there will ever be so universal a panacea. Recent investigations of a more scientific nature, however, should convince many skeptics of the need for these agents in urologic therapy. Indiscriminate use of a single drug for all types of infections in the urinary tract should be guarded against; clinical research directed toward determining the selectivity of certain chemicals, for special bacterial groups, opens a field of untold possibilities. Most of the reports appearing in the literature dealing with internal urinary antiseptics make no differentiation between uncomplicated and complicated conditions. In the two instances drugs will affect bacteria differently. By all the rules of physical and therapeutic reasoning, the uncomplicated conditions would obviously respond more favorably to treatment. In the complicated instances, the patient will not be relieved by internal medication alone. The urinary antiseptics under review are: oil of santal, methenamine, methylene blue, acriflavine, pyridium and azo dyes, hexylresorcinol, mandelic acid and sulfanilamide (prontosil). Every one of these agents has a place in treating urogenital ailments. In office and hospital practice employ them all. When one does not show itself adapted to a particular case, another one better suited to its needs should be sought. Every case is an individual problem; every patient may have his idiosyncrasy, his own capacity for reaction to one method of treatment and not to another. None of the present known urinary antiseptics can be called specifics. Every new agent announced should be given its day in court; it should have a fair trial, after which it will, as Davis has pertinently said, reach stability at its proper level of usefulness. Every clinician is an investigator; the final verdict is given not in the laboratory but in the knowledge gained from experience at the bedside.

THE JOURNAL

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SURVEY OF SYPHILIS IN INDIANAPOLIS*

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It seems to us who work in the clinics at the Indianapolis City Hospital that we have been on an endless treadmill with syphilis, and that in spite of long hours and hard work, we have accomplished little. Over a year ago we determined to find out as much as we could, with the limited facilities that we had, concerning the "why" of syphilis in Indianapolis. The City Health Board furnished us with an investigator who helped to gather facts and to correlate our work.

How much syphilis is there in Indianapolis? According to Dr. Parran, there is an average in the country of 390 new cases each year per 100,000 population. That means 1,000 new cases for Indianapolis per year. According to very accurate surveys in other parts of the country, one-half do not seek relief or are not recognized the first year. That leaves 500 new cases which are recognized. In our morning clinics in 1937 we had 133 new infectious cases, and in the afternoon clinics there were 100 new cases, a total of 233. The general average in other cities is forty per cent of syphilitics are treated in clinics and sixty per cent are treated privately. These figures apply to Indianapolis, that is, about 235 treated in clinics and 265 treated privately.

In a survey in Detroit, 4.8% of white industrial workers were shown to have had syphilis. Using approximately the same ratio, 5% of the 300,000 white people who live in Indianapolis, there are 15,000 white people in Indianapolis who have had syphilis. Fifteen per cent would be a very conservative estimate for the colored group. Thus, in a colored population of 40,000 there are 6,000 syphilitics. The combined groups will give a total of 21,000 people in Indianapolis who have been infected with syphilis. Eight hundred white doctors take care of the 15,000, while twenty Negro physicians theoretically take care of the 6,000. It seems very important, then, that the latter group should be very well

equipped and informed on this subject. They are really in the front line trenches in this war on syphilis and should be given every assistance to keep up with the modern methods of attack. From my experience in the clinics with the cases referred by Negro physicians, I concluded that dark field facilities in this group are lacking or are rarely used. The great importance of this small group of physicians to the community and the state was brought to the attention of the State Board of Health last summer. As a result, a course in every phase of syphilis is being given to the Negro physicians of the State by a co-operative group of specialists. This course is given at night at the Indianapolis City Hospital and every phase of syphilis, clinical and laboratory, is being taught and demonstrated. The cooperation is splendid.

Inquiry as to the amount of syphilis in various hospitals nearby was elicited. Some years ago I checked the admissions of syphilitics to the Riley Hospital for the first five years, and found it to be a little over 3 per cent. Dr. Beatty checked it for the next three years and found it to be 2.4%. In the Coleman Hospital, 3% was average over a period of years. I believe this is a fair average for rural Indiana. The Indianapolis City Hospital averages slightly over 10 per cent. In 870 outpatient deliveries, 74 had syphilis, which is 8.5 per cent. In the Insane Hospital at Logansport, 15% of admissions are syphilitics. At the Central Hospital for Insane, 25% of admissions had syphilis. In the Woman's Prison, 33% had syphilis. We would then conclude that the incidence of syphilis is much higher in the city than the rural districts. It is higher in the poor, and very high in the criminal. Syphilis seeks its level at the bottom of the economic and moral scale.

A more intensive study was made of the cases we saw in the clinic. In the morning clinic, we have seen this past year 133 new infectious cases, that is, primary and secondary, divided as follows: white—80; colored—53; males 65, females 68. The occupations of this group are as follows:

1. Waitress ----- 25%
2. Unemployed ----- 19%

* Presented before the Indianapolis Medical Society, December 14, 1937.

3. Housewife	-----18%
4. Laborer	-----16%
5. Taxi Driver	-----13%
6. Domestic	-----5%
7. Prostitute	-----4%

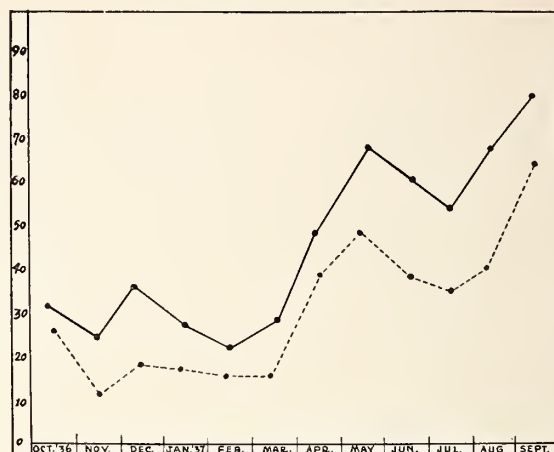
Next we attempted to check our cases by address. A map of the city was obtained and a pin placed upon the address given. A green pin is used for the new infectious case. Red is used for the contact or source of the infection.

By personal contact, our investigator located 58% of contacts and placed them under treatment. Many could afford to pay and were referred to their family doctor. A yellow pin was selected for prostitutes. This group is deemed particularly important because of the public utility phase of their business, and the great possibilities for harm which they possess.

Actually, more than 4% of prostitutes have syphilis, but most of that group are prosperous enough to get private medical care. A year ago we heard rumors that the members of this group were being examined and cared for by a few doctors with strong political background. About 150 women were checked by our investigator who found that thirteen doctors took care of this group, and that each selected her own doctor. All these physicians were in general practice, and in most cases they were selected because their office was near the business. There apparently is no regular system or method of examination in this city.

As the number of pins on the map increased, I was impressed with the fact that my private patients were getting syphilis from the same

CHART SHOWING LUETIC TREATMENT OF PREGNANT WOMEN



Number of treatments that should have been given ———
 Number of treatments that were actually given - - - -

sources as the clinic cases. Also, I noticed that the cases sent to me for dark field from the small towns—as far as fifty miles away—were getting their syphilis in Indianapolis. Thus the conclusion was made that the city acts as a feeder of syphilis for many miles around.

Another thing that was particularly noted in this group of new cases was that one-fourth of the men had had previous drug store treatment before coming to the clinic. Also, many doctors in private practice regard the genital sores as chancroids and treat them locally with all manner of bizarre methods. As a matter of fact, chancroids are rare in Indianapolis, and we see very few cases either in private or at the City Hospital.

How efficient are we in our treatment?

Of the first one hundred cases:

26 have taken full treatment—(that is, every week)

12 have taken one-half treatment

6 have taken one-fourth treatment

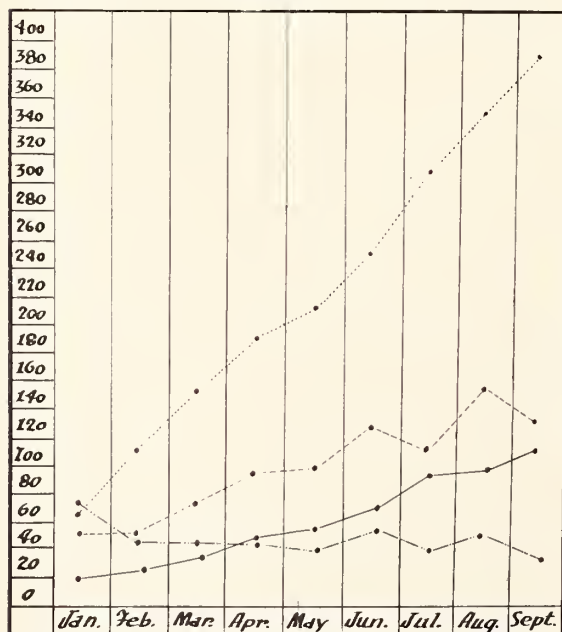
18 have taken five treatments or less

38 cases closed; of this group

10 transferred for private treatment or to clinics in other cities; 28 were lost—that is, never came back, or gave wrong name and address.

When the educational campaign on syphilis started about the first of the year (1937) we noticed a marked increase in the return of old patients. In January there were 1,414, increasing to 2,100 in August, and since then a peak of 2,294 was reached in October. These figures are for the number of treatments given in the morning clinics. A proportionate increase took place in the afternoon clinic. This shows an awakened public interest and response.

NUMBER OF NEW INFECTIOUS CASES SEEN AT CITY HOSPITAL



Number of treatments that should have been given
 Treatments that were actually given - - - -
 Number of new infectious cases — .. — .. —
 Efficiency ratio ———

SYPHILIS IN PREGNANCY

We next attempted to analyze the situation in the pregnant women who were coming to free clinics. We found that at first, in some of the outlying clinics, blood tests were not being drawn routinely; however, after protest, this situation was soon remedied. Of the first 57 cases studied:

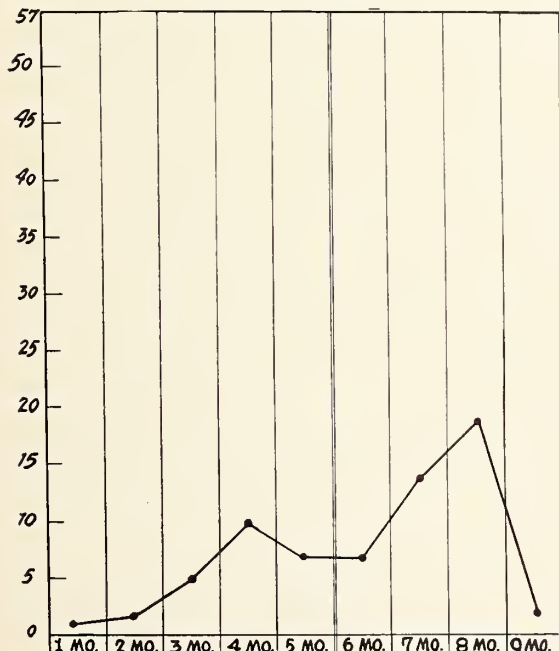
1	patient(s)	came for treatment the first month.
2	"	second
3	"	third
10	"	fourth
6	"	fifth
6	"	sixth
13	"	seventh
12	"	eighth
1	"	ninth

To protect the child, the expectant mother should begin her treatment by the fifth month. Only one-half came in time to receive enough treatment to protect the child. Once the potential mother was informed of her disease, she cooperated very well, receiving 80% of the treatments that it was possible to give her.

Of 4,160 treatments that should have been given, actually 3,120 were given, or about 80%. If only half of the cases came in time to give adequate protection to the child, and they received 80% of treatments, our efficiency ratio is 40% here.

Only 20 of this original group of 57 came back to the clinic. Two had dead babies, nine had babies with signs of inherited syphilis and 4 plus blood tests, and nine babies were good. This checks with about 40 per cent. This is a very

CHART SHOWING MONTH OF PREGNANCY WHEN LUETIC TREATMENT STARTED



poor record, and a very expensive one for the community in potential blindness, insanity, and other ailments.

The main reason given by this group of pregnant women for poor attendance at the clinic, and the poor record of only twenty showing up after delivery, was economic, i. e., lack of car fare. It is almost impossible for a woman and child to walk from the edge of town to the City Hospital in the winter. This was presented to a philanthropic organization, and car fare has been obtained for indigent pregnant women and mothers.

We have noted that frequently the husband brings syphilis home to his pregnant wife from contact with a tavern waitress or prostitute. Even if premarital examinations are made, it is important to check the potential mother. If congenital syphilis is to be wiped out in this community, a lot of work remains to be done by all. Women should be educated to come to the doctor in the early months of pregnancy for examination. A blood test should be made on every pregnant woman at the time of the first examination whether that patient is a clinic or private patient.

In addition to the above work, we were able to do 111 spinal punctures on clinic patients, a great improvement over other years. Four beds are available in the clinic and the patients remain there for the day.

When we first began this study, we were impressed with the handicaps placed upon syphilis as a disease. First there was the high laboratory cost in making blood tests for private patients. Second, the pauper oath was required on the free tests done at the laboratory of the State Board of Health. Fortunately, both of these factors have been recently corrected. Next, the comparative high cost of the arsenicals has always been a handicap in getting adequate treatment to the office patient who is trying to keep off the clinic level. At present several of the important manufacturers of the arsenicals have lowered the price to meet the present need. It is time that we all took the sin tax off of syphilis. I have found that most of the syphilitics belong in the lower economic group, and the cost of treatment has been a big factor in their not receiving adequate treatment.

In reviewing the local situation, we found little or no provision for the isolation of the infectious case of the prostitute type. This is really one of the key points in the syphilis problem. This matter has been presented to the local authorities, and provision is being made at the Indianapolis City Hospital to isolate a limited number of our most irresponsible cases during the acute phase of the disease.

We are attempting to do spinal punctures on all our cases and a big start has been made this year. However, after we find a bad spinal report, we do not have adequate provision to give fever treatment to prevent paresis. This is one of the problems that must be solved.

We are faced with crowded conditions in the clinic. Some patients do not return for that reason. Many lack car fare. Others simply don't care, and need police supervision to handle them in the infectious stage.

In 1938, we hope to extend our system of tracing contacts and to stop the small epidemics that break out. There should be correlation between private doctor and clinics and more education on the subject of syphilis in the profession and to the public. We can do this job as private physicians and stamp out syphilis. Let us follow the slogan: "No baby born with syphilis by 1940."
407 HUME-MANSUR BUILDING.

ABSTRACTS

PROTAMINE ZINC INSULIN: CLINICAL APPLICATION

HERMAN O. MOSENTHAL, New York (*Journal A. M. A.*, Jan. 8, 1938), declares that the observations made with protamine insulin, splendid as they have been, are not applicable to the management of diabetes with protamine zinc insulin, and to a great extent new plans of treatment must be developed. The most satisfactory measure for the adequate effect of protamine zinc insulin is the blood sugar, which should be regulated so that excessive hyperglycemia and marked hypoglycemia are prevented. The variations permissible in individual patients differ a great deal. Changes from the normal of the basic blood sugar and the postprandial hyperglycemia exist in all but the mildest cases of diabetes. The deviation in the basic blood sugar and the postprandial hyperglycemia is not the same in all diabetic patients and that is probably why a uniform method of insulin administration and dietary prescription will never be applicable to all cases, and individual requirements must be conceded. Hypoglycemic reactions have been less frequent with protamine zinc insulin than with protamine insulin. It is probable that in attempting to control the diabetes by one injection of protamine insulin which lasted for only twelve hours there was a tendency to overdosage. The reactions do not occur as often with protamine zinc insulin as with regular insulin but are prone to be more severe and prolonged. The hypoglycemia after exercise and the attempt to correct the hyperglycemia of nervous tension and of menstruation by increasing the protamine zinc insulin are common causes of reactions. When regular insulin is given in conjunction with protamine zinc insulin, the effects of regular insulin on the blood sugar are much enhanced and hypoglycemia often results. In all cases presenting hypoglycemic reactions while under careful hospital supervision it was noted that tremor and perspiration were much more frequent with regular than with protamine zinc insulin, that palpitation, irritability and blurred vision occurred with equal frequency, but that headache was much more often complained of while the subjects were under the influence of protamine zinc insulin. When a change was made from regular insulin to protamine zinc insulin in office cases, a slight to moderate headache on waking in the morning was often complained of; this appears to be an indication of hypoglycemia in the early morning hours and should be corrected by late evening meals or by lowering the dose of insulin.

THE BLOOD PICTURES OF PATIENTS WITH INTESTINAL DISEASE*

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Few places in the human body are afflicted with more serious disease than is the intestine. Whereas in the stomach and duodenum one or a few peptic ulcers may occur, in the intestine ulcers rarely occur singly or in small numbers. Innumerable, deep, penetrating ulcers and extensive, diffuse, inflammatory disease may and commonly do involve long stretches of intestine. Perforating lesions such as those associated with diverticulitis, actinomycosis, infectious granulomas, tuberculosis, amebiasis, and malignant disease occur commonly in the large intestine. Massive hemorrhage associated with passage of bedpanfuls of blood occurs frequently in disease such as thrombo-ulcerative colitis. Severe septic processes and toxemia are commonly associated with these major lesions. Yet, in comparison with numerous, excellent, and exhaustive studies that have been made on the upper part of the gastro-intestinal tract, studies on its lower part, that is, the small and large intestine, are few. This is a field, the surface of which from the standpoint of medical science has hardly been scratched and should command the interest of gastro-enterologist, physiologist, biochemist, and clinician. These facts are mentioned as an apology for the meager data available on this subject and in the hope that more men will interest themselves in investigation of this very important field of medical science.

It seems advantageous to report a series of cases that illustrate various types of pathologic processes that occur in the large intestine; in some, rather definite changes were found in the blood, and in others, in which the patients were seemingly as ill or more ill, there were no demonstrable changes in the blood. These two groups of cases are compared according to the type of management and progress of the patient.

SEVERE SEPTIC TYPE OF THROMBO-ULCERATIVE COLITIS

Case 1.—A dentist, aged thirty-six years, who came to the clinic from Illinois in October, 1931, gave a history of bloody diarrhea of two years' duration. After the first two weeks of illness he had experienced twenty bowel movements daily until his admission to the clinic. Fever of high degree, extreme weakness and great loss of weight had occurred. Concurrently, an extensive pyoderma gangrenosa and a severe polyarthritis existed. On admission the concentration of hemoglobin was 9.1 gm. per 100 c.c. of blood; erythrocytes numbered 3,080,000 and leukocytes 7,000 per cubic millimeter of blood. Treatment included administration of specific antibody solution (concentrated serum), three transfusions of blood, and finally, anticolitis vaccine. Improvement was slow but when the patient reported at the clinic five years later, he was perfectly well and the concentration of hemoglobin at the time (October, 1937) was 14.8 gm. per 100 c.c. of blood. Fig. 1.

* An address delivered before the Muncie Academy of Medicine, Muncie, Indiana, November 9, 1937.

† Division of Medicine, The Mayo Clinic.



Fig. 1. Extensive destructive disease of the mucosa and of the wall in an advanced case of thrombo-ulcerative colitis.

Case 2.—A married woman, aged twenty-four years, who came to the clinic from Illinois in November, 1936, gave a history of severe bloody diarrhea of six weeks' duration. The concentration of hemoglobin was 8.8 gm. per 100 c.c. of blood; erythrocytes numbered 3,740,000 and leukocytes 10,100 per cubic millimeter of blood. The percentages of the various types of leukocytes were as follows: lymphocytes 43, monocytes 2, neutrophils 54, and eosinophils 1. The 54 per cent of polymorphonuclear neutrophils were divided as follows: 46 were nonfilamented and 8 were filamented. Treatment included administration of specific antibody solution (concentrated serum), various supportive measures, reduced iron, and cupron. Reduced iron was given in doses of 1 gm. two or three times a day. Fig. 2.

It will be noted that in both cases there occurred an identical blood picture although in one case the history was of two years' duration and in the other, was of only six weeks' duration. Both patients were similarly ill, as far as degree of sepsis was concerned. The roentgenogram of the colon of each patient was like that depicted in figure 1.

Temperature curves of both patients were similar as illustrated in figure 2, and both patients recovered. One patient has been in good health for more than five years; the other, for a year. The blood picture was that of a hemoglobin deficiency type of anemia associated with reduction in the total number of erythrocytes and a relatively normal number of leukocytes but the striking thing about the differential count is the marked shift to the left of polymorphonuclear leukocytes. The great predominance of nonfilamented polymorphonuclear cells is also noteworthy. Some instances have occurred in which all the leukocytes, and frequently, nearly all, have been nonfilamented polymorphonuclear leukocytes.

HEMORRHAGIC THROMBO-ULCERATIVE COLITIS

Case 3.—A youth, aged nineteen years, who came to the clinic from Illinois in June, 1937, gave a history of bloody diarrhea of ten months' duration, moderately severe for the first eight months and very severe during the two months that preceded his admission to the clinic. The concentration of hemoglobin was 7.2 gm. per 100 c.c. of blood; erythrocytes numbered 3,290,000 and leukocytes 5,000 per cubic millimeter of blood. The percentages of the various types of leukocytes were as follows: lymphocytes 24, monocytes 3, neutrophils 66, eosinophils 6, and basophils 1. The 66 per cent of neutrophils were divided as follows: 58 were non-filamented and 8 were filamented. The sedimentation rate of erythrocytes was 127 mm. the first hour. The vitamin C content was 0.7 mg. per 100 c.c. of plasma and there was an excretion in the urine of 3.8 mg. in a twenty-four hour specimen. Serum proteins were 5.2 mg. per cent. There were extensive petechiae and sugillations of both lower extremities and of most of the trunk. Peripheral and dependent edema was present. Not only was there a tendency toward extensive hemorrhage in the cutaneous tissues but also the colitis was of the hemorrhagic type. The patient was under our care at the clinic for four months, and received 16 transfusions of 200 c.c. of blood each. Finally he made satisfactory progress and recovered. In addition to transfusions, his treatment included the administration of specific antibody solution (concentrated serum) and large quantities of concentrated vitamin C which included 4 to 6 tablets of cevitic acid each day for fifty days and 14 ampules of cebione of 2 c.c. each.

In case 3, the tendency toward hemorrhage is striking. Literally, bedpanfuls of blood were passed and a very low content of vitamin C was found in the plasma. The marked reduction in excretion of vitamin C is also noteworthy. The average normal content of vitamin C in the plasma has been recorded as 1 mg. and excretion in the urine as 20 in a twenty-four hour specimen.

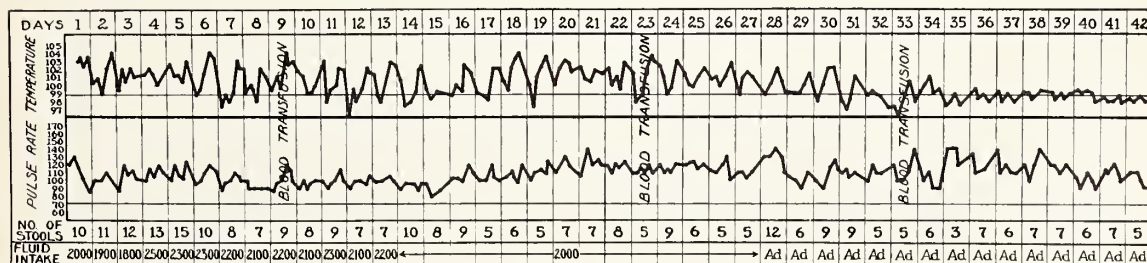


Fig. 2. A temperature curve of a patient who had septic thrombo-ulcerative colitis; response to treatment.

CHRONIC THROMBO-ULCERATIVE COLITIS WITH COLONIC SCARRING

Case 4.—A man, aged twenty-three years, who came to the clinic from Pennsylvania in July, 1937, gave a history of constant diarrhea of two years' duration. Evacuations on the average ranged between fifteen and twenty a day. A diagnosis of intestinal allergy had been made previously. At the time of examination at the clinic, the picture was typical of a late stage of thrombo-ulcerative colitis. The bowel presented the appearance of a narrowed, scarred tube (figure 3) less than 1 cm. in diameter. The concentration of hemoglobin was 12.9 gm. per 100 c.c. of blood; erythrocytes numbered 4,740,000 and leukocytes 5,000 per cubic millimeter of blood. The percentages of the various types of leukocytes were as follows: lymphocytes 26, monocytes 5, neutrophils 59, eosinophils 9, and basophils 1. The 59 per cent of neutrophils were divided as follows: 41 were filamented and 18 were nonfilamented. Treatment included administration of specific antibody solution (concentrated serum), a diet high in calories, high in content of proteins, and of low residue, and administration of karajel, a substance used to thicken the stools. The bowel movements were reduced to six in each twenty-four hour period. On November 1, 1937 he wrote that the average was four small formed stools daily.

This case is illustrative of the first (see comment) type of chronic ulcerative colitis, in which the disease has burned itself out and while much damage of the bowel has occurred previously, the present difficulty is largely a mechanical one. The blood picture was essentially normal in spite of a constant, severe diarrhea, to the extent of fifteen to twenty evacuations daily for two years.

REGIONAL ILEOCOLITIS

Case 5.—A man, aged twenty-seven years, who came to the clinic from Ohio in May, 1937, gave a history of intermittent diarrhea of three and a half years' duration. There had been noticed little or no gross blood at any time. A diagnosis of amebiasis had been made



Fig. 3. Markedly narrowed colon owing to extensive scarring although disease was quiescent.



Fig. 4. Obstructive inflammatory disease of the cecum.

and he had received more than 200 capsules of carbar-sone, 650 of vioform, and fifteen injections of emetine during the period of illness that preceded his admission to the clinic. Two months previously, he had undergone appendectomy without subsequent relief of symptoms. The outstanding features of his disorder were symptoms of intermittent obstruction in the ileocecal region (figures 4 and 5). The concentration of hemoglobin on admission was 17 gm. per 100 c.c. of blood; erythrocytes numbered 5,380,000 and leukocytes 7,000 per cubic millimeter of blood. In view of a normal transverse and descending colon and the marked obstructive features, surgery seemed to be the treatment of choice. Ileocolostomy was performed and later right hemicolectomy was carried out. Recovery was uneventful.

In this case, too, the blood picture was essentially normal in spite of severe obstructive disease at the ileocecal junction. The disease was inflammatory in nature and was associated with much scar tissue.

DIFFUSE POLYPOSIS

Case 6.—A man, aged twenty-seven years, who came to the clinic from Wisconsin in July, 1937, gave a history of severe bloody diarrhea of one year's duration. His father had died at the age of forty-nine years as a result of extensive, diffuse polyposis of the large intestine. His brothers, aged thirty-three years, thirty-one years, twenty-nine years, and twins aged twenty-five years were known to have had diffuse polyposis. His sisters, aged thirty-seven years and thirty-five years had not been so afflicted. The concentration of hemoglobin was 15.3 gm. per 100 c.c. of blood; erythrocytes numbered 4,550,000 and leukocytes 11,500 per cubic millimeter of blood. Ileosigmoidostomy and subtotal colectomy were performed and recovery was uneventful.

Here again, in spite of continuous diarrhea and severe bleeding from a very polypoid mucous membrane for a year, no changes in the blood picture could be detected.

CARCINOMA OF ASCENDING COLON AND ANEMIA

Case 7.—A widow, aged fifty-four years, who came to the clinic from Louisiana in July, 1937, gave a history of diarrhea of eight months' duration. She had passed only three to seven stools daily but had experienced cramps, loss of weight, and anemia since the onset of illness. Diagnosis of bacillary dysentery had been made, and she had been treated with antibacillary dysentery serum reinforced by a vaccine for bacillary dysentery.

On admission, the concentration of hemoglobin was 9.12 gm. per 100 c.c. of blood; erythrocytes numbered 4,260,000 and leukocytes 5,500 per cubic millimeter of blood. Examination of blood smears gave evidence of a hypochromic, macrocytic anemia. Roentgenologic investigations revealed carcinoma of the cecum. In the stools there were innumerable *Endamoeba histolytica*. The amebiasis was treated first with emetine and treparsol and later ileocolostomy and right hemicolectomy were performed for an adenocarcinoma of grade 4, on the basis of 1 to 4.

This case should not require much comment. It represents the timeworn story of anemia associated with carcinoma of the right side of the colon, but case 8 illustrates an important point, namely, that this type of anemia has been mistaken frequently for pernicious anemia.

Case 8.—A man, aged fifty-nine years, came to the clinic from Nevada in August, 1937. He had not been feeling well during 1935 and in October of that year his physician discovered the presence of pernicious anemia. The patient received treatment sporadically with lextron, Bland's pills, and intravenous ferro-arsen. His condition remained about the same with very little progression until June, 1937, at which time he began to lose ground rapidly. There had been increase of weakness, loss of appetite, and he had lost 18 pounds

during those two months. Recurrent abdominal cramps, especially in the right lower portion of the abdomen had been experienced for several months. There had been much bloating. He was referred to the clinic with a definite diagnosis of pernicious anemia.

The concentration of hemoglobin was 7.5 gm. per 100 c.c. of blood; erythrocytes numbered 3,840,000 and leukocytes 8,400. Examination of blood smears gave evidence of hypochromic anemia. Roentgenologic studies revealed carcinoma of the ascending colon. After two transfusions of 500 c.c. of blood several days apart, ileocolostomy and resection were performed owing to the presence of an ulcerated, annular adenocarcinoma of grade 2 which involved the ileocecal valve.

ACTINOMYCOSIS OF THE SIGMOID

Case 9.—A woman, aged thirty-five years, came to the clinic from North Dakota in April, 1937. She had had acute appendicitis, with perforation, and this had been associated with a pericecal mass. Operation had been performed on October 23, 1936; the wound had drained for three weeks and she had been in the hospital for five weeks. During the subsequent months, she had been fairly well but in January, 1937 she began to complain bitterly of gas pains and an abscess was drained surgically through the left lower portion of the abdomen. On admission to the clinic, there was a huge, nodular, infiltrating mass which filled the pelvis and impinged on the rectosigmoid junction. Actinomyces were found in the discharge from the draining, left, abdominal abscess. The roentgenologic studies revealed an obstructive lesion in the lower sigmoid (figure 6). The concentration of hemoglobin was 8.6 gm. per 100 c.c. of blood; erythrocytes numbered 3,860,000 and leukocytes, on April 28, May 3, May 11, June 29, and July 6, 1937 numbered respectively 17,500; 15,000; 12,500; 16,600, and 14,400 per cubic millimeter of blood. In one differential count which revealed 79 per cent



Fig. 5. Disease of distal ileum and cecum.



Fig. 6. Deformity caused by actinomycosis involving the sigmoid.

polymorphonuclear neutrophils, 51 were filamented and 28 nonfilamented and a similar picture prevailed throughout the term of illness. However, the sedimentation rate of erythrocytes was 130 mm. during the first hour. Treatment included deep roentgen therapy, potassium iodide, and thymol. No striking improvement occurred during her stay in the hospital.

This case illustrates another type of blood picture commonly found in various types of severe, long standing, perforating lesions of the colon. There is a persistent leukocytosis without the marked toxic features as expressed in other cases by the ratio of filamented to nonfilamented forms of the polymorphonuclear neutrophilic leukocytes. The high sedimentation rate of erythrocytes is also noteworthy. The severity of the disease is illustrated well by its prolonged course and by the appearance of the roentgenograms.

COMMENT

These cases illustrate that in at least two major lesions of the intestine, there is associated rather a characteristic blood picture. While the extent of changes in the blood varies in patients who have thrombo-ulcerative colitis, in the main the picture is quite characteristic. So, too, when there is a change in the blood picture in individuals who have cancer of the right side of the colon, it is rather characteristic. The blood picture associated with many other severe intestinal conditions is variable but in infectious types of disease, such as diverticulitis and actinomycosis, the picture usually seen in septic processes is present. It becomes obvious that the individual who has the most extensive destruction of the bowel in cases of thrombo-ulcerative colitis, is not always corre-

spondingly the most ill. Size of the lumen of the bowel, contour of its edge as viewed in the roentgenogram, extent of marginal serrations, thickness of the wall, and smoothness of the lining are factors that indicate recent activity or reveal the extent of the disease. The bowel may be narrow and yet its surface may be relatively smooth as the result of replacement of the mucosa by scar tissue. Hence, several types of advanced and severe thrombo-ulcerative colitis are encountered: (1) the chronic type in which much of the trouble is mechanical; (2) the severe septic type; (3) the hemorrhagic type; (4) the early case with involvement of distal colon and rectum. In types 1 and 4, there may be little or no change in the blood picture. In type 2, we have the blood picture as illustrated by case 1 and case 2; this is a hemoglobin deficiency type of anemia. The number of leukocytes may be normal or only slightly increased but in the differential count the striking thing is the vast predominance of nonfilamented polymorphonuclear neutrophils. The sedimentation rate of erythrocytes is invariably greatly increased. The whole picture is that of a severe destruction of blood cells and marked toxemia.

In the hemorrhagic type of disease, the picture may be similar with the exception of great evidence of blood loss; repeated transfusions may fail to reestablish even a nearly normal concentration of hemoglobin. Of course, borderline cases between these four types will occur and, in these instances, no definite classification can be made, indicating that all are but phases of one infectious process.

As I have studied the blood picture of patients who had severe septic and hemorrhagic types of chronic ulcerative colitis, I have learned much about prognosis. If, in spite of the presence of a relatively normal number of leukocytes, the percentage of nonfilamented polymorphonuclear neutrophils is slowly and steadily increasing, the outcome is usually not good. If massive hemorrhages occur repeatedly and petechiae of the skin and suggillations appear, it is important that more than just transfusions be given. It will be found usually that these individuals have a low content of vitamin C. Administration of large quantities of vitamin C may reduce the tendency toward hemorrhage. Products of iron of all types are administered with difficulty because most of them will affect intestinal activity adversely. In spite of this, the one in greatest favor seems to be common reduced iron; it is given in doses of 1 gm. Cupron (Ayerst, McKenna and Harrison) stands perhaps next in favor. Ferric citrate and ferric ammonium citrate seem to be, in the main, somewhat laxative. Liver extract given in large doses has been very helpful. And finally, repeated small transfusions have great value.

Many carcinomas of the right side of the colon are mistaken for some type of anemia, not infrequently pernicious anemia, until the hope for eradication of the malignant growth has passed. In the brief period of one week, recently, I saw

four patients who had been treated for pernicious anemia for a period of nine to eighteen months whose anemia was apparently owing to a carcinoma of the cecum; when this lesion was eradicated, the blood picture promptly became normal. It is not uncommon to find a rather marked anemia as the only symptom of progressing carcinoma of this region. This has made me feel that whenever an individual has an anemia the etiology of which has not been determined, roentgenologic studies of the intestinal tract are indicated. Case 9 illustrates this well. You have all heard of classifying the lesions of the right half of the colon from the standpoint of symptomatology as anemic, dyspeptic, or accidental. While this classification is not entirely adequate, keeping it in mind will help in discovery of a good many neoplasms in this region which otherwise might be overlooked. Among the measures to combat anemia associated with carcinoma of the right side of the colon, the foremost is blood transfusions. Preparations of iron and liver extract also have proved valuable.

To summarize, the blood picture in an advanced case of thrombo-ulcerative colitis is characteristic and rather typical and secondary anemia associated with carcinoma of the right side of the colon is so characteristic that its presence should suggest this lesion. The blood pictures associated with other inflammatory lesions simulate those usually associated with other septic processes.

ABSTRACT

LESIONS OF THE BRAIN FOLLOWING FEVER THERAPY: ETIOLOGY AND PATHOGENESIS

In addition to a review of the two cases and the experiments on twenty animals previously reported, F. W. HARTMAN, Detroit (*Journal A.M.A.*, Dec. 25, 1937), adds one more case and experiments on fifteen animals in this study in an effort to answer the following questions relative to the striking parallelism between the lesions of the brain ascribed to asphyxia and those observed after fever therapy: 1. Is this apparent parallelism confirmed or disproved by histologic examination of the brain and other organs? 2. Are the physical and the biochemical disturbances associated with fever therapy conducive to anoxia? 3. Does anoxia occur during fever therapy and if so to what degree? Constant and severe anoxia is shown by the decreased oxygen saturation of the arterial blood and the low oxygen content of the venous blood in animals after fever therapy. Animals having a saturation below 65 volumes per cent died. Factors producing anoxia during fever therapy are alkalosis, accelerated blood flow, increased temperature of the blood and increased demand for oxygen in the tissues. The last results from the increased metabolism and the depressed utilization of oxygen of the tissues, especially the brain, due to the histotoxic effect of the sedatives used. The pathologic changes resulting from fever therapy are typical of anoxia produced in other ways, such as prolonged asphyxia, carbon monoxide poisoning and acute alcoholism. Anoxia may be prevented by the administration of oxygen throughout fever therapy, provided respiration and blood pressure are maintained at reasonable levels. The best method of administering oxygen during fever therapy is the nasal catheter; it allows the patient to ingest fluids, an electric fan to be used, ice to be applied to the face and the patient to be moved. Combinations of oxygen and carbon dioxide may be used to counteract the alkalosis and apnea.

ORBITAL TUMORS*

D. A. BARTLEY, M.D.

Indianapolis

Tumors of the orbit have been divided by systematic writers into those which originate within the bony orbit and are unconnected with the globe of the eye and those originating in the globe itself.

The nature of orbital tumors may be either benign or malignant. After enucleation of the globe for sarcoma of the choroid, there may be recurrence of the growth in the orbital tissue. The symptoms vary according to position, size, and density of the tumors. Small tumors may be present in the orbital cavity for years without marked symptoms of their existence.

Sooner or later proptosis and swelling of the lids develop. Generally speaking, tumors within the cone of the recti muscles cause a forward displacement of the globe, while tumors situated outside of this cone may displace the eye ball in some peculiar direction. Because of the flexibility of the lids, tumors may cause considerable proptosis before the protrusion is so great that the lids can no longer close over the prominent eye ball. If exophthalmos is present, it is then important to decide whether inflammation or tumor formation is present as the basic cause. This is usually easy because the inflammatory process has acute and inflammatory symptoms such as swelling of the lids, conjunctiva and pain, whereas exophthalmos as a result of tumor formation develops gradually and without irritation.

Chronic inflammation with tissue formation may simulate tumors and likewise a tumor, when partly necrotic, may cause acute inflammation.

In doubtful cases syphilis should always be excluded.

For the most part tumors arising within the eye ball are glioma of the retina and sarcoma of the choroid.

Gliomas are generally confined to children under five years of age. This condition is occasionally bilateral. The prognosis is fairly good if early diagnosis and surgical removal is done. In surgical removal, the optic nerve should be cut as far back as possible. In the differential diagnosis one must consider pseudoglioma arising from massive exudates in the vitreous and also phthisis bulbi which may simulate glioma.

The sarcomas are generally pigmented since they usually originate in the choroid. The first manifestation is an acute fulminating glaucoma with cloudy media obstructing a clear view of the interior of the eye ball. The glaucoma is of a unilateral type with no signs in the other eye.

Even in sarcomas which have ruptured the globe, good results are usually obtained by com-

* Presented before the Section on Ophthalmology and Otolaryngology at the French Lick Session of the Indiana State Medical Association, October 5, 1937. Read by Dr. E. W. Dyar in the absence of Dr. Bartley.

plete exenteration of the orbit. The most satisfactory method for performing this operation will be described in one of the case reports which follows.

Case No. 1. Mr. J. H., age seventy-three, first seen February 12, 1935. He gave a history that he first noticed the vision failing in his right eye sometime in 1921. There was no pain in the eye for six months from the time he first noticed visual failure. He then had a severe attack of iritis which lasted for six weeks, when the eye became quiet and remained so for another eighteen months. The second attack was so severe and sudden that he was compelled to seek relief in the night. He was sent to the hospital the day following the severe attack and the lens was removed from the eye.

This case was not under my care at this time and I was unable to determine just why the lens was removed. I presume it was for the relief of increased tension.

In about six weeks from the first operative procedure, the vision in the left eye began to fail and the right eye was removed. This was in 1923. The socket healed and there was no further trouble until August, 1934, eleven years later, when he noticed that the socket had become so shallow that it was with difficulty he was able to wear a prosthesis.

The tumor gradually grew until February, 1935, when he reported to me with a dark red tumor mass protruding from the eye socket to such an extent that he was unable to close his eye lids.

He was sent to the Methodist Hospital where the usual examinations, including a Wassermann test, were done.

The laboratory tests were negative.

A complete exenteration of the right orbit was performed on February 18, 1935, under avertin anesthesia. In making the conjunctival incision, the cut was made as far as possible from the tumor mass. Soon the orbital fat protruded from the wound and the dissection was made close to the bony wall of the orbit well back to the apex.

At this time a tonsil snare designed by Dr. Russell Sage was used, because with it one is enabled to use a wire loop which is large enough to introduce around a tumor mass as large as this one. By passing the wire loop over the largest portion of the tumor and gradually closing it as the loop passed farther and farther toward the apex of the bony orbit, the entire contents of the bony orbit were removed. There was no hemorrhage.

The bony orbit was packed with vasoline gauze, which was removed on the fourth day. Daily dressings were done and the patient left the hospital on the eighth day.

As a precautionary measure, four x-ray treatments were given over a period of ten days, beginning about two weeks after dismissal from the hospital. The pathological report is as follows:

Gross Examination. Gross specimen consists of a rounded nodule mass which measures 4 cm. in diameter.

The specimen is blackish brown in color. On sectioning one finds material to be the consistency of a thick chocolate pudding, which holds its shape fairly well. At one edge of the specimen, however, there is a rounded nodule about 1 cm. in diameter; this is pearly white and very granular.

Microscopic Examination. Histological section through the tumor mass shows it to be composed of irregular masses of connective tissue, which in some places form well-like structures. In other places the structures are composed of interlacing bundles of fibroblastic cells. The cells are spindle shaped, and vary considerably in size and shape, the nuclei are large, and were spindle shaped throughout, and occasionally an atypical mitotic figure can be seen. There are occasionally small accumulations of melanin pigment seen throughout the tumor. The supporting stroma is very scant and is composed of strands of dense fibrous connective tissue between the interlacing bundles of embryonic fibroblasts. The vascular supply of the tumor is moderate throughout, and in some areas the tissue between the cells is infiltrated by small numbers of red blood cells.

Impression. Melano-sarcoma.

This patient's wound healed promptly and has remained so for more than two and one-half years.

Case No. 2. On January 15, 1934, J. B., a female child, ten weeks old, was first seen because the parents had noticed a peculiar appearance in the pupil of her left eye. This was the only child of normally healthy parents, and she had a normal healthy appearance except for the eye condition.

Inspection revealed a left pupil slightly dilated. There was the typical yellowish reflex as seen in the amaurotic cat's eye which is present in cases of glioma of the retina.

The pupils were dilated with homatropine and a tumor of about two disc diameters was seen occupying the space in the left eye adjoining the optic nerve and extending above and to the nasal side of the disc.

The parents were advised of the nature of this tumor and its dangers. They consented to the enucleation of the eye.

I had never enucleated an eye in a child so young and because of the difficulty encountered I would like to mention the advisability of doing an external canthotomy before attempting to remove an eye in a patient as young as this one. The nerve was cut as far back as possible, but the globe would not deliver and I was obliged to do the canthotomy after the nerve had been cut. This caused no difficulty except that a rather large hematoma formed in the orbit which required about three weeks for absorption.

After applying the dressings, a macroscopic examination of the tumor was made. It was the size of a wheat grain, light yellowish in color, attached by a pedicle somewhat smaller than the tumor mass. It had the typical appearance of a glioma of the retina. Because of the gross examination, the tumor mass itself was destroyed and no microscopic examination was made.

A histological examination of the optic nerve was made and the report follows:

Gross Examination. Gross specimen consists of the eye, which is collapsed; the vitreous humor has escaped; the structure appears to be the globe opened; the

choroidal coat is quite dense, black, shows clearly in the cavity of the eye, without the covering of the redness superimposed; the measurements are quite out of the question due to the fact that the eye was collapsed, and there is no evidence of any delineation of the different chambers of the eye. Area over the region of the point of entrance of the optic nerve appears to be definitely thickened, it is about 3 to 4 mm. or 2 to 3 mm. in thickness, and occupies a plaque-like thickening of about 1 cm. to 1½ cm.

Microscopic Examination. Histological section taken through the zone of entrance of the optic nerve to the posterior portion of the eye shows the elastic coat and muscular coat quite regular in all respects; there is some increase in vascularity, the choroidal coat is somewhat irregular, and appears to be appreciably more dense and compact than one usually sees. The vascularity of the choroid is quite excessive. The retinal layer is totally destroyed, there is no remnant of such structure seen, and the choroid lies bare in most instances. There is no evidence of any tumor cell in the nerve head, no evidence of any tumor invasion in the fibrous tissue and elastic tissue of the exterior coats of the eye. The muscle attachments that are seen near the posterior zone of the exterior surface of the eye show a muscle fibre quite regular, and fatty loose areolar tissue, free from any inflammatory cell infiltration.

Impression. No evidence of any tumor invasion of the optic nerve in its entrance to the eye, no evidence of any invasion of any other coats of the eye. No inflammatory process is evidenced; there is total destruction of the retina, partial destruction of the choroid.

The child left the hospital on the sixth day and made a normal recovery. The eye socket was inspected at intervals of two or three weeks until in May, 1934, when the child apparently had made a complete recovery. About eight weeks later the child's father reported to tell me that he believed there was something wrong with the child's other eye.

When I saw the child the pupillary appearance was the same but not so pronounced as in the first eye. The pupil was dilated with homatropine and a tumor of the same structure and general characteristics as the one seen in the other eye was observed. The tumor mass this time was of about one-fourth the size of the first.

Both the parents and I decided to give no consideration to enucleation in regard to the last eye. The problem then was to decide between radium and x-ray treatment. The parents were opposed to any further operative procedure, even the planting of radium seeds. Consultation with the radiologist resulted in the decision to administer a course of x-ray treatments.

It was necessary to put this child to sleep with amylal each time before her x-ray treatment could be given. When the child was asleep it also gave me an opportunity to get a good view of the fundus and to observe the progress of the treatment. The tumor mass began to grow smaller after four or five weeks of treatment.

The radiologist's comment follows:

X-ray irradiation was given to this patient in the so-called "broken dose method," by which a moderately large total dose was applied in individual doses of relatively small intensity, ranging from 180 r to 270 r, at intervals of three to eighteen days over a total period of forty-two days between August 6 and September 17, until a total of 1,665 r had been given over a right

lateral field at the right orbit and 776 r over an anterior field. Each field was approximately 1 inch in diameter. The factors used were 150 peak kilovolts, ½ mm. copper and 1 mm. aluminum filter at 12 inch tube-skin distance, with which the erythema skin dose is 550 r. The pituitary and cerebrum were spared as far as possible. A similar but somewhat smaller dosage was applied between December 15 and January 21, a period of thirty-seven days.

The technique used was selected because it was considered desirable to irradiate homogeneously not only the tumor itself but the adjacent tissues behind the eye over a rather prolonged period without undue risk of damage to the cornea and lens. Implantation of radium or of radon seeds into the retrobulbar tissues would not have permitted such a long-continued dosage, would have given much less homogeneous distribution of irradiation and would have entailed definite risks to vision. The literature on radiation treatment of retinal glioma is full of reports of unsuccessful attempts to influence the condition favorably by x-ray and radium dosage of even caustic intensity, but without exception, as far as we have noted, such treatment has been given by the old "massive-dose" method. Glioma in general varies greatly in radio-sensitivity and we might reasonably expect that some cases, such as this one, will be found which can be made to respond favorably under dosage which can be tolerated without damage to vision. In spite of the very great amount of labor and patience required by the use of the broken-dose method in such a case, we believe it is the only reasonable technique to apply if an attempt is to be made to conserve vision.

You will see from these comments that treatment ended January 21, 1935. At that time the appearance of the fundus was practically the same as it is now. There is an area beginning at the nerve head, extending up and to the temporal side, in which both the retina and choroid are destroyed. This area is depressed below the retinal level and resembles a coloboma of the choroid.

The macular region is intact and visual acuity seems fairly good. The child is now past three years old and is able to find her toys, recognize pictures of animals and recognize her daddy from the window to their front gate—which is sixty or seventy-five feet away.

In presenting this case, I regret that I did not get a microscopic examination of the tumor mass. I hope it will be of some benefit to those ophthalmologists who are called upon to treat a bilateral glioma, one of the most difficult tasks an eye man has to do.

It is obviously impossible to draw conclusions from the two cases which are reported in this paper; however, when one looks upon each case as representative of cases observed in private and clinic practice over a period of several years, one is justified in concluding that:

1. Orbital tumors are fairly common in the practice of ophthalmology.

2. Differential diagnosis between orbital tumors and inflammatory processes within the bony orbit should be made.

3. The prognosis as to glioma and sarcoma is not as grave as we have been led to believe, provided early diagnosis is made and there is a complete removal of the tumor followed by x-ray therapy.

4. In treatment of glioma of the second eye, the x-ray and possibly radium offers the most humane and satisfactory solution in these cases.
706 HUME-MANSUR BUILDING

DISCUSSION

C. J. ADAMS, M.D. (Kokomo): I wish to express my appreciation of Dr. Bartley's paper and my interest in his two unusual cases: two patients with ocular tumors at the extremes of life. I would like to take exception to just one statement if I may. He states, "Even in sarcomas which have ruptured the globe, good results are usually obtained by complete exenteration of the globe." My experience and the literature do not confirm this statement.

The neoplasm may be one with the ability to metastasize quickly. This is particularly true of intraocular sarcomas. I remember three intraocular sarcomas, each of which were minute in size and which were recognized for what they were very early in their existence. All three of the eyes were removed at once. Two of the patients died within a year of a metastasis in the liver. The other is still alive and apparently well.

With no thought of criticizing the essayist for his use of the term glioma, but because of its unusual interest in the classification of ocular tumors, I should like to quote the opening paragraphs from a case report by Dr. John M. McLean in the *Archives of Ophthalmology*:

"The purpose of this paper is to report an apparently unique retinal tumor. So far as can be found, no similar tumor has been reported in the literature. This tumor is a true glioma of the retina—an astrocytoma.

"The term glioma of the retina was first used by Virchow to describe tumors now known as retinoblastoma. It was later pointed out that such tumors were not glial in nature and differed essentially from the true gliomas of the brain to which they had been likened. Wintersteiner, following Flexner's lead, introduced the term neuro-epithelioma retinae, and Verhoeff suggested the better name retinoblastoma, by which the tumor is now known in this country. With the exception of a few French authors, ophthalmologists have abandoned the term glioma of the retina, generally believing such an entity does not exist. However Verhoeff in 1932, in reviewing the subject of glioma of the optic nerve, called attention to the fact that there was true glial tissue in the retina and that sooner or later a true glioma of the retina might occur. The finding of the tumor reported here bears out this prophecy."

My experience with orbital and intraocular tumors is my guide in the care of these cases. The patient seeks a cure, and I believe that we are able to give the patient his desire more often if we are prepared with a well organized plan of procedure.

I think these cases should be handled as follows:

First. Existence of the disease should be discovered as early as possible. In the majority of

cases, the patient does not realize that he has a tumor in this region, or he thinks he has some minor ocular disability which can be easily cured.

The ophthalmologist should recognize an exophthalmus of small degree or a slight impairment in the movement of one of the two eyes. Also, he should find intraocular tumors, if present and large enough to be seen, when the fundi are routinely examined.

Second. It is of prime importance to make a correct diagnosis as early as possible. In the event that this can be done, we are then ready for our next step. If it cannot be done definitely, I am inclined to operate and sacrifice the eye if my consultants are not convinced that the growth is benign.

Third. Promptness is an essential to a cure. You encounter many delays after you are convinced of your diagnosis and are ready to operate. The patient does not wish to lose his eyeball. Numerous consultations are demanded, etc. However, when you are convinced that you are right, insist upon immediate action.

Fourth. I am satisfied that success demands that you be absolutely radical in your surgery. Temporizing and half-way measures will wreck your attempt to save the patient. I firmly believe that exenteration of the orbit is the procedure of choice in the majority of both intraocular and extraocular tumors. If radium is to be used, the dosage should be very large.

Fifth. Never regard any case as incurable except carcinoma, which we know is a metastasis from some other focus in the body. It is our duty to fight to the end regardless of the poor prognosis. Once in a while we win. I have had one case which illustrated this very definitely. Briefly, my patient had an orbital tumor that was growing very rapidly. The inside of the eye was normal. Pathological diagnosis was at first metastatic adenocarcinoma. Later, the diagnosis was changed to lymphosarcoma. The tumor was on the temporal side and was pushing the eyeball to the right. The interesting feature of this case was that the consultant felt that the prognosis was hopeless. He was largely influenced by a radiologist who made a diagnosis of tumor of the hypophysis which was connected with the orbital tumor through an enlarged optic foramen, and also dehiscences in the bone of the orbit. I exenterated the orbital contents and found the bony orbit apparently normal. Massive doses of radium were used in the orbit with apparent complete recovery of the case. This work was done six years ago and the patient is in perfect health today.

I have been using a tonsil snare as the last step when removing an eye or the orbital contents for more than twenty years. I think Dr. Suker was the originator of the technic. It renders the operation practically bloodless and allows the surgeon to implant a gold ball or use any other refinement of technic he may desire.

C. C. TAYLOR, M.D. (Indianapolis): Dr. L. A. Smith, the radiologist in one of the cases mentioned by the essayist, has prepared a discussion concerning the treatment given in our office. The technical factors which he mentions briefly are of no major importance to you, but a general knowledge of the time factor or total period of treatment is important in the event that you should have occasion to inform a patient after you have decided to use irradiation. Please note that I said a general knowledge of the time factor, because when a case is accepted for treatment, a detailed and unalterable series of treatments cannot be tabulated. Clinical observations by the radiologist and the ophthalmologist in each case are as important during radiation therapy as they are during the administration of other medical therapeutic agents. Dr. Smith's comments follow:

"X-ray irradiation was given to this patient in the so-called 'broken dose method,' by which a moderately large total dose was applied in individual doses of relatively small intensity, ranging from 180 *r* to 270 *r*, at intervals of 3 to 18 days over a total period of 42 days between August 6 and September 17, until a total of 1665 *r* had been given over a right lateral field at the right orbit and 776 *r* over an anterior field. Each field was approximately one inch in diameter. The factors used were 150 peak kilovolts, $\frac{1}{2}$ mm. copper and 1 mm. aluminum filter at 12 inch tube-skin distance, with which the erythema skin dose is 550 *r*. The pituitary and cerebrum were spared as far as possible. A similar but somewhat smaller dosage was applied between December 15 and January 21—a period of 37 days.

"The technic used was selected because it was considered desirable to irradiate homogeneously not only the tumor itself but the adjacent tissues behind the eye over a rather prolonged period without undue risk of damage to the cornea and lens. Implantation of radium or of radon seeds into the retrobulbar tissues would not have permitted such a long-continued dosage, would have given much less homogeneous distribution of irradiation and would have entailed definite risks to vision. The literature on radiation treatment of retinal glioma is full of reports of unsuccessful attempts to influence the condition favorably by x-ray and radium dosage of even caustic intensity, but without exception, as far as we have noted, such treatment had been given by the old 'massive dose' method. Glioma in general varies greatly in radio-sensitivity and we might reasonably expect that some cases, such as this one, will be found which can be made to respond favorably under dosage which can be tolerated without damage to vision. In spite of the very great amount of labor and patience required by the use of the broken-dose method in such a case, we believe it is the only reasonable technique to apply if an attempt is to be made to conserve vision."

Possibly in a few words I can explain why protracted radiation therapy or the "broken-dose

method" should do less damage and give us better results than the massive dose methods in common use not so many years ago. A neoplasm made up of more or less abnormal cells or undifferentiated cells is covered by and surrounded by tissues made up of normal and differentiated cells. Therefore, a large volume of normal cells will be exposed to the rays during the treatment of the lesion. However, we have to our advantage the accepted facts that normal cells are less damaged by irradiation and also they have the power of more rapid recovery from that damage done than do the new growth cells. Furthermore, all of the cells of the tumor are not in the age of mitosis at the same time. At present it is an accepted fact that cells are more susceptible to irradiation during or near the stage of mitosis. By the application of daily or almost daily small doses, the difference in degree of damage in normal and abnormal cells becomes greater and greater and also a better opportunity presents itself for bombarding all of the cells composing the neoplasm at or near the time of mitosis.

It might readily be concluded that we believe we can irradiate all neoplastic lesions which, of course, is not true. The same relative sensitivity of normal and diseased tissues has to be dealt with in protracted irradiation as we had when using massive doses. For example, suppose we had a squamous cell metastatic lesion in a lymph node; it would be impossible for us to give a lethal dose to the abnormal squamous cells and preserve the normal lymphatic structure. In the treatment of this eye case, the smaller part of the total dose was given through the port that included the lens. The structures of the eye have greater tolerance to irradiation than many have estimated, but, frankly, we do not know how much more the lens will tolerate when the dose is fractionated. We have enough troubles without inviting more; therefore, when possible, we avoid heavy exposure of tissue which we are fearful of damaging.

The percentage of cures in gliomata of the retina with our present technic of external radiation is said to be about fifty per cent. We hope that in the future this percentage will be increased.

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SYPHILIS IN INDIANA

CECUM LIGNUM*

HAROLD D. CAYLOR, M.D.
Bluffton

Cecum lignum, its symptomatology, pathology, and diagnosis, its relationship to appendicitis, and regression of the ligneous inflammation after appendectomy are discussed in this study. In the large bowel an inflammatory lesion may produce symptoms, physical signs and roentgenological findings which closely simulate a malignant neoplasm. Ligneous infection of the cecum is a lesion in which this error may be made, as well as in tuberculosis, actinomycosis, syphilis, and appendiceal abscess involving this organ.

For a long time it has been suggested that there was a relationship between cecum lignum and chronic appendicitis. In the first volume of the *Collected Papers of the Mayo Clinic*, Dr. W. J. Mayo wrote: "A large amount of inflammatory tissue lying about an infected appendix or a chronic cecal ulcer which has become buried in the wall of the cecum may cause a mass that may be present for weeks or months. I have no doubt that surgeons other than ourselves have cut down on such movable tumefactions expecting to find cancer of the cecum."¹ Bryan² mentions cases of infection of the appendix with involvement of the cecum adjacent which have been cured when the appendix was removed. Furthermore, this observer states that in some types of inflammation of the cecum there is no evidence of disease of the appendix although the disorder may have been caused by appendicitis. Bryan quotes Nemilov³ who feels that some inflammatory tumors of the cecum have followed the use of silk suture and because of this fact he has discontinued this type of suture. Bachlechner⁴ reported four cases of chronic inflammatory cecal tumor in which the appendix was apparently the etiological factor. Bargaen and Jacobs⁵ studied 22 cases of inflammatory cecal tumors. Three of these cases apparently came within the group we are considering. Two of these cases were definitely cecum lignum type and one was a chronic inflammatory lesion with contraction of the bowel. Two of Bargaen's cases improved after an exploratory operation including an appendectomy.

Rankin, Bargaen and Buie⁶ described ligneous infections as an inflammatory form of hyperplasia for which no specific cause can be found. The condition is not tuberculosis, syphilis, actinomycosis or endamoeba histolytica.

Stewart⁷ has described in detail a case of ligneous infection of the base of the appendix and adjacent cecum which was involved in an intussusception. At the time of the operation the surgeon was certain the condition was malignant but subsequent examination of the resected tissue revealed an inflammatory lesion.

Mock⁸ has studied infective granuloma of the gastrointestinal tract and mentioned appendicitis as one of the etiological factors in this condition. Walters and Synhorst⁹ have reported a case of ligneous cecal infection resulting from a subacute appendicitis.

Ravdin and Rhoades¹⁰ in a recent study have suggested that fibroplastic appendicitis and regional ileitis are closely related lesions. Pfeiffer Meade in discussing this study mentioned a case of his own with a fibroplastic appendicitis in which the cecum and terminal ileum presented fibroplastic changes.

SYMPTOMATOLOGY

According to Rankin, Bargaen, and Buie the symptoms of cecum lignum are as variable as the disease itself. Most commonly there is indefinite abdominal pain which may localize in the right lower quadrant. Not infrequently in this disorder an abdominal tumor is accidentally discovered, many times by the patient himself. The size these tumors attain with such few symptoms is astonishing to both the patient and his physician. If pain is present it is usually mild although at times cecum lignum may be ushered in as an acute attack of appendicitis with epigastric distress, nausea, vomiting and a leukocytosis of from 12,000 to 15,000. Occasionally an intestinal obstruction or partial obstruction may occur and give signs such as are seen in acute obstructive diseases. In other cases there may be no acute symptoms of any kind. Anemia is rarely found.

PATHOLOGY

The tumor-like masses which affect the cecum are composed of piled up granulation tissue in various stages of fibroplastic change, necrosis and reparative overgrowth. All coats of the large

* Presented before the Section on Surgery of the Indiana State Medical Association at the French Lick session, October 5, 1937.

1 Mayo, W. J.: Tumors of the Cecum. *Coll. Papers Mayo Clinic* 1, 260-267, 1905.

2 Bryan, W. A.: Simple Inflammatory Lesion of the Cecum. *South. Surg. Trans.*, 43, 320-329, 1930.

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5 Bargaen, J. A. and Jacobs, M. F.: Inflammatory Cecal Tumors, Diagnosis of Types of Obscure Etiology. *Arch. Surg.* 20, 832-852, 1930.

6 Rankin, F. W., Bargaen, J. A., and Buie, L. A.: The Colon, Rectum and Anus. W. B. Saunders Co., Philadelphia, Pa., 203-211, 1935.

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8 Mock, H. E.: Infective Granuloma; Non-specific Chronic Tumor-Like Productive Inflammation of the Gastrointestinal Tract. *Surg. Gynec. and Obstet.*, 52, 672-689, 1931.

9 Walters, Waltman, and Synhorst, A. B.: Ligneous Infections of Cecum Resulting from a Subacute Appendicitis. *Surg. Clin. N. Amer.*, 6, 1203-1206, 1926.

10 Ravdin, I. S. and Rhoades, J. E.: Regional Ileitis and Fibroplastic Appendicitis. *Ann. Surg.*, 106, 394-404, 1937.

intestine are involved and strictures and ulceration of the mucosa may be present. The whole cycle of changes that apparently take place are as though the reparative changes have overgrown every other element. What the stimulating substance is no one can say. Some authors⁶ have stated that smears and cultures from the most active parts of the lesion show no bacteria. Commonly there is a pericolicitis with enlargement and thickening of the structures adjacent to the colon so that the tumor mass may reach large size (15cm.).

The microscopic appearance of cecum lignum varies considerably from an infiltration of the ordinary structures by lymphocytes, plasma cells, and some polymorphonuclear leukocytes to a slight production of fibrous connective tissue. (Figure 1.) In lesions which have been present for some time and are associated with a tumor an altogether different type of structure may be found. The most prominent feature is a dense infiltration of fibrous connective tissue which may replace the normal architecture of the cecum. Scattered through the meshes of the connective tissue are lymphocytes, plasma cells and a few leukocytes. (Figures 2 and 3.)

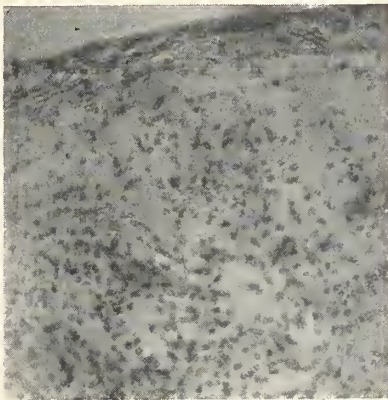


Figure 1: Relatively acute cecum lignum (case 3). There is little change in the architecture but dense infiltration with inflammatory type of cells, lymphocytes, plasma cells and some polymorphonuclear leukocytes. (X100.)

DIAGNOSIS

It is almost impossible to diagnose cecum lignum before operation even with the aid of the roentgen ray. An exploratory operation may even leave the surgeon in doubt as to what type of lesion he is dealing with and the surgical pathologist may have to decide the actual character of the lesion. There are, however, certain distinctive symptoms of cecum lignum, according to Rankin, Bargen and Buie. Very commonly there is a palpable tumor in the right lower abdominal quadrant which may be associated with acute exacerbations of fever, leukocytosis, rarely nausea and vomiting, colic and other obstructive symptoms. There may be loss of weight and strength although it is fre-



Figure 2: Low power photomicrograph of a chronic cecum lignum (case 2) illustrating dense infiltration with fibrous connective tissue. (X15.)

quently surprising to the physician to find a patient with so large a lesion giving so few general symptoms. Roentgenological findings are variable and not diagnostic. There may be a filling defect in the cecum resembling that seen in a neoplasm of the cecum. Malignant lesions of the cecum, other inflammatory granuloma, and an atypical appendicitis all must be considered when one is confronted with a case of cecum lignum. For example, a patient suffering from an acute attack of appendicitis, a few hours old, rarely has a palpable mass so commonly seen in cecum lignum. Furthermore, one rarely sees a large malignant tumor mass in the cecum without secondary anemia. In cecum lignum, large cecal tumor masses are practically always without secondary anemia.

The disorders to be considered in a differential diagnosis have already been commented upon.

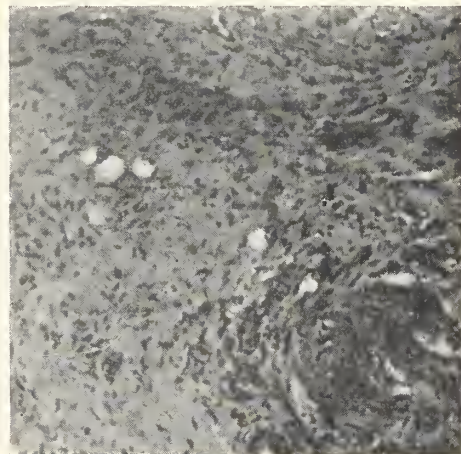


Figure 3: Higher magnification illustrating the type of changes commonly found in chronic cecum lignum and the infiltration of the normal structures with connective tissue and inflammatory cells. (X100.)

CASE REPORTS

Case 1. C. C., a physician, aged 57 years, had for many years had stomach trouble which was characterized by occasional attacks of nausea and vomiting. There was no pain associated with the attacks. At the time of the present attack he had a dull aching pain in the right lower abdominal quadrant with a tender area at McBurney's point. An indefinite mass was felt here. The leukocytes numbered 12,000 per cm., at first, and rose to 20,000 in a few hours.

A diagnosis of an acute appendicitis was made and an operation performed. Right rectus incision was used and the appendix was found to be very red and swollen. At the base of the appendix in the cecum was a hard firm area about 4 to 5 cm. in diameter. Because of this indurated area it was impossible to invert the appendix stump when the appendectomy was performed. The possibility of malignant change here was considered. No attempt was made to remove this area in the cecum. The wound was closed without drainage. Subsequent microscopic examination of the appendix revealed no evidence of any type of neoplasm, although there was a marked fibrosis of the appendix such as is seen in ligneous infection. These slides were reviewed by Dr. A. C. Broders of the Mayo Clinic. At yearly intervals for 3 years a roentgenologic examination was made at the Mayo Clinic and no evidence ever was found of a neoplasm in the cecum and now, 10 years since the operation, the patient is alive and in good health.

Case 2. Mrs. R. S. Aged 50 years, farmer's wife, complained of a tender abdominal mass. She had known of some difficulty in her abdomen for at least two years. Almost a year before examination she had been under observation in the hospital for an intestinal obstruction which was relieved without any operative interference. At the time of the examination there was a mass approximately 12 cm. in diameter occupying the right lower abdominal quadrant. There was no anemia. Fluoroscopic examination of the colon revealed a filling defect of the cecum which could not be further identified even with air colon studies.

Exploration of the mass was agreed upon and operation was performed under ethylene anaesthesia, after vaccination against peritonitis using Barger's technique. Through a long right rectus incision a mass was found approximately 14 cm. x 10 cm. x 8 cm. involving the cecum and ascending colon. The appendix was not identified. This mass was attached to the anterior abdominal wall and adjacent abdominal muscles. Several biopsy specimens were removed and in fresh frozen sections all seemed to be inflammatory tissue. The growth was freed from the abdominal wall and an ileocolostomy, side to side, was performed between the last loop of the ileum and the transverse colon. An enterostomy was performed in the proximal loop of the anastomosis. At a second operation it was planned to resect the mass including the cecum and ascending colon. Careful study of fixed sections revealed a marked infiltration of the cecum with dense fibrous connective tissue in places suggesting a desmoid. There were many plasma cells, lymphocytes and polymorphonuclear leukocytes. Convalescence was stormy for a few days. About 6 weeks after the first operation, roentgen examination revealed a patent opening between the ileum and transverse colon. A note was made that barium passed from the cecum into the small bowel but did not fill the cecum because of the tumor. The patient was allowed to go home and was to return for the second operative procedure. She improved so much while she was at home that she refused to undergo the second operation. Now, almost 2 years since the ileocolostomy, she is alive and in fairly good health. The mass has greatly reduced in size although it is still palpable.

Case 3. Mr. F. M., a farmer, aged 25 years, first came to us complaining of nausea, vomiting, and a pain in the right side. He had not been feeling well for several weeks. The present attack began a few hours

before he presented himself. The salient features in this examination were a temperature of 100, pulse of 80, and no pathological elements present in the urine. White blood cells numbered 12,600 per cu. mm. There was slight rigidity of the right rectus muscle and a palpable tender mass near McBurney's point. A tentative diagnosis was made of an acute appendicitis, and an operation advised. The patient demurred. The following day the white count had dropped to 7,600 but the mass in the region of McBurney's point seemed to be larger and more tender. A second time the patient was urged to be explored and he consented. Ethylene anesthesia was used and the approach made through a right rectus incision. When the cecum was exposed, a mass was found involving the base of the appendix and extending up around the ileocecal valve. A biopsy was taken from the cecum involving the serosa and deeper structures. Grossly, the lesion appeared as a red, hard, malignant neoplasm. Several lymph nodes adjacent to the cecum were enlarged and firm. Some of these were examined microscopically together with the tissue from the cecum and all found to be inflammatory tissue. The specimen from the cecum was infiltrated with lymphocytes, a few plasma cells, and many polymorphonuclear leukocytes. Fibrous connective tissue had infiltrated the normal architecture of this organ. There was considerable edema in some portions of the tissue. (Fig. 1.)

An appendectomy was performed. Because of stiffness of the base of the appendix, the stump was not inverted. The abdomen was closed without drainage. Convalescence was uneventful. Six weeks after the operation, roentgen examination of the cecum revealed no lesion and no mass palpable. The patient has been free of symptoms and in good health now for 2 years.

Case 4. M. D., a widow, aged 55 years, came complaining of what had been diagnosed as numerous attacks of appendicitis. The first attack had occurred 19 years before, soon after the birth of her last child. She commonly had about 2 attacks yearly of pain and distress in her right lower abdominal quadrant. These continued until she was 50 years old when she passed the climacteric, then the attacks ceased. Roentgenological examination of the colon revealed no especial pathology except that the appendix was visualized by roentgenograms 48 hours after a barium enema.

Five years after this examination the patient returned with this story: Four or five days before her return she had another of her so-called "attacks of appendicitis." This time the illness did not leave spontaneously. The pain and soreness persisted and the patient noticed a "lump" for the first time in her right lower abdominal quadrant. The white blood count was 10,000 and the temperature 100, and a single urine specimen revealed no pathological elements.

Physical examination disclosed a tender mass 4 to 6 cm. in diameter in the lower right abdominal quadrant near McBurney's point. There was right rectus muscle rigidity. A tentative diagnosis was made of an acute appendicitis with possibly beginning abscess formation and operation was advised and accepted by the patient.

With the aid of an ethylene anesthetic, through a right rectus incision, an acutely inflamed appendix was visualized. There was a firm, roughly circular area from 4 to 5 cm. in diameter involving the appendix base and the adjacent cecum. Fresh frozen sections confirmed the surgical opinion of ligneous infection. An appendectomy was performed. The appendix stump was not inverted. The patient made an uneventful recovery and is living and in good health 21 months since the operation.

COMMENT

From our own observations and those of others, this type of typhlitis known as cecum lignum may apparently be associated with acute and chronic appendicitis. Removal of the appendix

alone many times is sufficient to cause a recession of the disorder and a disappearance of the tumor mass. We feel that Mock is correct when he asserts that no large lesion of the cecum should be abandoned as an inoperable lesion until a microscopic examination has been made of tissue from several areas. Mock feels that many so-called spontaneous cures of malignant lesions of the cecum have really been a regression of an infectious granuloma for which resection or similar radical operation may not be required and thus the patient can be spared the extra risk associated with the more radical procedure. Heed must be given to Ravdin's suggestion of a possible connection between fibroplastic appendicitis and regional ileitis and, in our opinion, cecum lignum. Why regional ileitis is associated with severe anemia and cecum lignum with no anemia is unexplained. Cecum lignum is a challenge to the diagnostic acumen of the surgeon and surgical pathologist and should always be kept in mind when a patient presents himself with a palpable tumor in the right lower abdominal quadrant which is not associated with a secondary anemia and much loss of weight.

303 SOUTH MAIN STREET.

DISCUSSION

J. H. WEINSTEIN, M.D. (Terre Haute): I have nothing to add to the paper but I want to congratulate the doctor on bringing this subject up. It is something that all of us have had experience with in opening the abdomen and have been often at a loss to know what procedure to carry out. We have frequently felt that it looked very definitely malignant in a macroscopic way. It is only by experience such as the essayist has had that you can make the diagnosis at the time of operation.

O. W. SICKS, M.D. (Indianapolis): Ten days ago I saw in consultation a seven months' old baby in whom a diagnosis of intussusception was made. The barium enema would not pass the hepatic flexure. At operation I found a small tumor of the cecum about the size of a small olive, soft in consistency. We were at quite a loss to know what the condition was, as the baby had been in perfect health only a few hours before. The picture presented was that of an intussusception, though nothing of the kind was present. The tumor was practically obstructing the ileocecal valve, so we did a duodenostomy and put in a catheter, which the baby pulled out on the fourth day. The baby is now having normal bowel movements.

HAROLD D. CAYLOR, M.D. (Bluffton) (closing): I hope no one will criticize a surgeon brave enough to take out one of these tumors on a tentative diagnosis of malignancy and then find that it is inflammatory. The great Lord Moynihan has taken out inflammatory tumors in the belief that they were malignant and then found them to be benign.

FOREIGN BODY IMPACTED IN RECTUM

CASE REPORT

WILLIAM B. CHALLMAN, M.D.

Mount Vernon, Indiana

Mrs. F. S. presented herself on September 22, 1937, complaining of an intermittent increase in temperature which had persisted for at least a month, inability to control her bowels, and a feeling that "everything will drop out" of her rectum. In addition, for the previous three days, she had had intense pain in the rectum when the bowels moved and a throbbing pain quite high in the rectum which was worse when she sat down. At no time was blood or pus noted in the stools.

Her past history was not significant except that she had experienced a similar attack with pain and fever about two months previous to consultation.

Physical examination revealed a large, heavy woman in good general health but evidently in severe pain. The temperature was 100 F. and the pulse 120. General examination was negative.

Pelvic examination revealed nothing except a marked rectocele.

Digital examination of the rectum revealed a cylindrical body, apparently about 2¼ inches long and ½ inch in diameter lying in a transverse position in the upper part of the rectum. The position was oblique, one end pointing toward the left wall of the vagina, the other toward the right ischio-rectal space. The walls at the point of contact were indurated and exceedingly tender. Movement of the object caused excruciating pain.

The object could not be loosened by the finger, so, with the patient in the Hanes position, a short Hirschman rectoscope was introduced. The longer part of the oblique end was passed beyond one side of the object which was thus partially exposed near its middle. The object was then divided with nasal scissors and each half withdrawn separately through the rectoscope. The vaginal end was found to be imbedded about ¼ inch, and the other end at least ¾ inch into the rectal mucosa. Placed together, the two pieces formed a sharp, pointed chicken bone.

The wounds were cleansed and hot saline rectal douches ordered. Relief from pain was immediate and lasting.

On September 25, 1937, the patient was much better but there still was considerable induration on the right side and it was feared that an ischio-rectal abscess might form, but no change was made in the treatment. On September 27, 1937, the patient was seen again and as there was no pain or induration present, she was discharged.

It is probable that the bone had been imbedded at or near the rectum, perhaps not so tightly impacted, for at least two months in view of the history given and considering the fact that all signs and symptoms promptly disappeared upon removal. There was no recurrence, and no other condition could be found to account for them.

131 WEST THIRD STREET.

CHRONIC ULCERATIVE COLITIS*

EMOR L. CARTWRIGHT, M.D.

Fort Wayne, Indiana

Chronic ulcerative colitis may be defined as an infection of the wall of the colon, usually beginning in the lower rectum and extending upwards, in which are found progressively inflammation, punctate hemorrhages, edema, miliary abscesses, and tiny ulcerations. The disease invariably becomes chronic and is accompanied by muco-purulent, bloody discharges. It has assumed an importance today that was little dreamed of a decade ago. In all probability it is not a new disease, but just another disease separated by investigators from that promiscuous group known as diarrheas and dysenteries. Certainly some of the intestinal flux and cholera morbus of our fathers must have been chronic ulcerative colitis. Tuberculosis and cancer have undoubtedly been blamed many times. Occasionally amebiasis is diagnosed when chronic ulcerative colitis would be the correct diagnosis.

The hybrid phrase "intestinal flu" has had quite a vogue and is still being used in some quarters. Some of these cases may be the beginning of chronic ulcerative colitis. At other times cases are diagnosed colitis, spastic colitis, or mucous colitis, without any investigation whatsoever. It should be unnecessary to state that the terms spastic colitis and mucous colitis are misnomers and, therefore, should not be used; but we still see these terms in print and occasionally hear them used. Doctor W. C. Alvarez has said that he spends several hours a week arguing with people who have come with a diagnosis of colitis in whom no inflammatory colon reaction was found.

ETIOLOGY

Why chronic ulcerative colitis develops, we are unable to say. While our knowledge is limited, it is generally considered that there are some things which predispose to its development. The chief one of these is upper respiratory infections. The diarrheas and dysenteries are factors. Severe emotional disturbances at times precipitate an attack. There are other factors, but these are the most common.

The age incidence is interesting in that most of the cases occur in those from 25 to 40 years of age. It is uncommon in children although Helmholz¹ has reported a series of 65 cases in children, ages not given. The youngest case I have had was a child of 15 years who died of the disease. Elderly people are likewise less susceptible to the disease, the oldest patient I have had being 62 years of age. Brust,² in reviewing 1,291 cases at the Mayo

Clinic over a nine-year period, found 25 of them to be over 60 years of age, an incidence of 1.9 per cent. There were four patients over 70 years of age. Men and women seem to be equally affected.

Whether or not chronic ulcerative colitis is a distinct disease entity, caused by a specific organism, as claimed by Bargaen,³ or rather that it is a syndrome with a multiplicity of causes, as claimed by Paulson,⁴ is not for us to decide. In fact we can safely ignore the controversy over the etiology and bend our efforts toward the treatment of this terrible malady.

The research work of J. Arnold Bargaen, of the Mayo Clinic, in this colon disorder has been of vast importance. He has isolated an organism from the ulcers which he calls the diplostreptococcus of chronic ulcerative colitis. This he has cultivated in pure culture. Susceptible animals have been inoculated from this culture and they have developed the disease. The organism has been recovered from these animals and grown in pure culture again, thus completing the requirements of Koch's law. This work has been done by men eminent in their fields, of the highest integrity, with meticulous care, yet there remains the fact that their work has not been universally accepted.

Recently Dack⁵ has isolated bacterium necrophorum from three cases of chronic ulcerative colitis and feels that it is of etiological significance.

Felsen⁶ is of the opinion that bacillary dysentery, distal ileitis and chronic ulcerative colitis are merely different stages or manifestations of the same disease. I have been unable to find any other authority who subscribes to this belief. Crohn⁷ is of the opinion that ileitis and colitis are entirely distinct. It would appear to me that, since ileitis is cured by surgery, and that in chronic ulcerative colitis surgery is contra-indicated, this would certainly lend credence to the belief that they are separate and distinct diseases.

Avitaminosis was formerly thought to be a cause of chronic ulcerative colitis, but it is now generally held that deficiency states are a result of the disturbed absorptive function of the colon, and not a cause.

It has been pretty well disproved that chronic ulcerative colitis is an end result of amebiasis.

3 Bargaen, J. Arnold: The Management of Colitis, pages 16 to 106, National Medical Book Company, New York, N. Y., 1935.

4 Paulson, Moses: The Present Status of Idiopathic Ulcerative Colitis, *J. A. M. A.*, 101:1687-1694, Nov. 25, 1933.

5 Dack, G. M., Dragstedt, Lester R., and Heinz, Theodore E.: Bacterium Necrophorum in Chronic Ulcerative Colitis, *J. A. M. A.*, 106, 7-10, Jan. 4, 1936.

6 Felsen, Joseph: Nonspecific Ulcerative Colitis, Terminal (Distal) Ileitis, and Bacillary Dysentery, *New York St. Jour. Med.*, Vol. 35, No. 11, June 1, 1935.

7 Crohn, Burrill B., and Rosenak, Bernard D.: A Combined Form of Ileitis and Colitis, *J. A. M. A.*, 106:1-5, Jan. 4, 1936.

* Presented before the Section on Medicine of the Indiana State Medical Association at the French Lick session, October 5, 1937.

1 Helmholz, Henry F.: Chronic Ulcerative Colitis in Childhood, *Ohio St. M. J.*, Vol. 32, No. 10, Oct., 1936.

2 Brust, John C. M. and Bargaen, J. Arnold: Chronic Ulcerative Colitis Among Elderly Persons, *Minn. Med.*, 18:583, Sept., 1935.

Still some wit remarked that there would be fewer diagnoses of chronic ulcerative colitis if anti-amebic treatment were more generally used.

PATHOLOGY

The pathology of this disease has been studied thoroughly by Bergen and his co-workers. They have studied it from every angle and in every stage. In fact you are compelled to turn to Bergen's and Buie's investigation for a complete pathological description, since it has been given by no one else.

In Bergen's book, *The Management of Colitis*, he recognizes five stages in the development and progress of chronic ulcerative colitis. I will quote sentences from his book:

First Stage. "The earliest changes demonstrable by proctoscopic examination are those of a diffuse inflammatory reaction in the mucous membrane of the colon." "Closer study of the mucous membrane reveals numerous small hemorrhages scattered about in the diffusely inflamed mucosa."

Second Stage. "Definite distinction between the first stage and the second is not always possible. However, separation into stages is warranted because in the second stage an additional characteristic appears in the guise of edema of the mucous membrane."

Third Stage. "In this hyperemic and edematous mucosa, little spots appear immediately beneath the mucous membrane, resulting in the third stage of this pathologic development." "Miliary abscesses are scattered diffusely throughout the wall of the diseased portion of the bowel."

Fourth Stage. "The miliary abscesses ultimately overcome the limiting effect of the superficial lining of the mucous membrane, and rupture through it, leaving open ulcers. These are the miliary ulcers of chronic ulcerative colitis, and now the wall presents the typical diffuse, granular, bleeding, 'moth-eaten' appearance, the fourth stage of chronic ulcerative colitis."

Bergen recognizes the four active stages just given and a fifth stage of remission. "During this period of remission, the wall of the bowel presents the same characteristics which are seen when patients have been 'cured' of the disease." "Contraction of the wall of the bowel is a constant feature, and is one of the cardinal diagnostic characteristics of chronic ulcerative colitis."

SYMPTOMS

The onset of chronic ulcerative colitis is not abrupt as the dysenteries usually are. The first knowledge the patient may have that any thing is wrong is that he is tired, with an uneasy feeling in the abdomen, or slight cramps. He may notice a little blood on the feces.

In the acute fulminating type these early symptoms rapidly become worse when the patient develops fever, and bloody diarrhea with tormina. He is acutely ill and is confined to bed. Bloody stools are frequent, one every hour or oftener,

night and day. There is marked loss of weight, and anemia rapidly ensues with an accompanying pallor. Appetite is gone and sleep is broken. The patient is very fearful, as well he might be. In many cases, in spite of any treatment instituted, death follows in a few months. In more favorable cases the disease may be arrested and become chronic.

In the less severe type the disease does not progress rapidly. The patient may carry on his usual occupation. Diarrhea may never intervene; on the contrary, it is not uncommon for these individuals to be constipated. Blood will occasionally be found on the feces.

All degrees of severity or mildness may be noted in between these extremes, judging from symptoms alone.

DIAGNOSIS

The diagnosis is made solely by the proctoscope. All other agencies are merely aids in making a more comprehensive diagnosis. The abdomen may be distended, palpation may elicit tenderness, and purulent, bloody stools may be frequent, but until a proctoscope is inserted there is no way of determining what is taking place in the colon. The appearance of the mucosa varies with the stage and severity of the disease. In the milder cases there will be blood flakes, mild muco-purulent discharge, and areas of normal mucosa, with little edema. Wiping the blood away, one will notice that the mucosa bleeds easily beneath. The extent of the disease is easily seen, and it is usually confined to the rectum. Normal mucosa may be seen above the upper limits of the disease. This condition may persist for weeks or months without any change for the better or worse, in spite of all treatment. The patient will not be bedfast and will remain at work.

In the more violent reactions the mucosa is markedly swollen and seems to ooze blood. The mucosa is speckled, which is evidence of punctate hemorrhages, miliary abscesses, or tiny ulcerations. There is a large amount of a muco-purulent discharge. The upper limits of the disease frequently cannot be seen. The colitis becomes progressively worse and in time the discharge may be almost pure pus, with a minimum of blood. Narrowing of the rectum takes place and it is found difficult to pass a sigmoidoscope three-quarters of an inch in diameter. Smaller sizes must then be used in order to avoid rupturing the rectum.

During remission of the milder cases the purulent secretion may persist for some time, while the mucosa appears normal. There may be some slight edema.

Remission in the severe types, if it occurs, will show the purulent discharge with considerable narrowing of the rectum.

X-ray study of this disease is limited to the detection of additional pathology beyond the limits of the sigmoidoscope. It may be used in determining the extent of crippling of the colon by

narrowing, or stricture formation. Polyps may be located by the double contrast method of Weber.⁸

It is my opinion that bacteriological examination, either of the ulcers or of the stools, is futile as far as aiding clinicians in treating the disease is concerned.

DIFFERENTIAL DIAGNOSIS

In the differential diagnosis, we are interested in eliminating amebiasis, tuberculosis, malignancy, lymphopathia venerea, and simple proctitis.

Amebiasis is eliminated by warm stool examination, and, when the rectum is involved, by an entirely different mucosal picture. The mucosa will show considerable hyperplasia and ulcers with edges undermined.

Tuberculosis is eliminated by x-ray study of the chest, and again by a different picture upon proctoscopic examination. Malignancy is eliminated by sigmoidoscopy with biopsy, or x-ray study. Lymphopathia venerea is eliminated by the Frei test and by rectal examination. Simple proctitis, hemorrhagic proctitis, or whatever you choose to call it, is eliminated by finding no ulcers on proctoscopic examination.

I am saying nothing about bacillary dysentery, because so little is known about the proctoscopic picture. Some authorities say it cannot be distinguished from chronic ulcerative colitis. The bacilli dysenteriae are difficult to isolate and in addition there is considerable doubt about their being the cause of bacillary dysentery. Agglutination tests are available. The disease usually appears in epidemic form and is self-limited.

COMPLICATIONS

The number of patients having complications is given by Bargaen³ as 15%, with many patients having several. He enumerates 18 different complications with polyposis, stricture of the large intestine, arthritis, and perirectal abscess leading.

In my practice I have seen just a few, namely, abscess with a fistula following, nutritional edema, anal ulcers, and cutaneous lesions.

While not properly a complication, the habit of some patients in eliminating first one food then another in the hope of curing themselves may lead to untoward results. It seems inconceivable, but a patient may actually be starving.

PROGNOSIS

The work of Bargaen has produced a more optimistic outlook in the prognosis.

Recurrences are the rule and, as he has said, we must think of chronic ulcerative colitis as we do of tuberculosis, in terms of arresting the disease, rather than of curing it.

The acute fulminating type carries a high mor-

talidity, and even when a remission obtains, the patient is often left with a permanently crippled colon.

The duration of the disease, with its remissions, must be thought of in terms of years.

TREATMENT

The treatment of chronic ulcerative colitis is prophylactic and curative. By prophylactic is meant the prevention of recurrences rather than the prevention of the original attack. Until more is known concerning the onset of the disease, we shall be unable to give competent advice concerning the prevention of the first attack. However, concerning recurrences it seems important to warn the patients against upper respiratory infections for, in the opinion of Bargaen, these are frequently responsible. All foci of infection should be eliminated, such as abscessed teeth, diseased tonsils, or infected anal crypts.

The resistance of the individual must be kept up by a high caloric diet, with an abundance of vitamins. Food residue must be kept at a minimum. Anemia must be combatted. The patient needs plenty of rest and sleep. I feel it is a mistake for these individuals to partake of alcoholic beverages, or to use tobacco. Over-tiring must be avoided, as well as all emotional upsets. However, it is better that these patients be busy at something, in order to avoid a state of innocuous desuetude.

The active treatment of chronic ulcerative colitis is about as unsatisfactory and as discouraging as anything well could be. We are more certain concerning negative advice than we are of positive advice. To illustrate, we know that irrigations are harmful, and that surgery is dangerous. This does not mean that surgery should never be done, because we are occasionally forced to operate for complications, such as perirectal abscesses. Ileostomy is now limited to complications, such as stricture formation and repeated hemorrhages. Infected anal crypts should be eradicated. If possible, surgery should be undertaken during a period of remission, rather than during the attack, as the mortality rate is lower.

It is well known that we have no single remedy which is specific in all cases of chronic ulcerative colitis. While I believe that Bargaen's anti-chronic ulcerative colitis serum is of great value in the acute attack, there will be an occasional case that will succumb in spite of all treatment. The serum is a distinct advance in the therapy of this disease. I have used polyvalent stock vaccines and Bargaen's vaccine with rather indifferent results. I have not tried autogenous vaccine.

While most medication taken internally is of doubtful value, there is one remedy I⁹ have found useful, namely, alpha naphco. When taken in a

⁸ Weber, H. M.: Roentgenologic Demonstration of Polypoid Lesions and Polyposis of Large Intestine. *Am. Jour. Roentgenol.*, 25:577-589, May, 1931.

⁹ Cartwright, Emor L.: Treatment of Chronic Ulcerative Colitis, *Amer. Jour. Digestive Diseases and Nutrition*, Vol. 3, No. 1, pages 70 to 72, Mar., 1936.

sufficiently large dosage it is of distinct aid in bringing about a remission. Whether or not sulfanilamide will prove of value in chronic ulcerative colitis remains to be seen when we hear from the larger clinics. In my practice sulfanilamide has not given any better results than alpha naphco.

Colon irrigations, of whatever nature, are definitely contraindicated, but instillations and insufflations are useful and desirable. Winkelstein¹⁰ has reported favorable results with azochloramid in olive oil (1 to 2,000). Eyerly and Breuhaus¹¹ recently reported on the use of aluminum hydroxide and kaolin instillations. Felsen¹² has suggested oxygen insufflations. Soper¹³ has had splendid results with insufflation of equal parts of calomel and bismuth subcarbonate. I favor the latter treatment along with alpha naphco.

In cases presenting marked secondary anemia, and in repeated hemorrhages, blood transfusions are imperative. It may be necessary to give morphine to the full therapeutic effect to control pain and excessive peristalsis.

The medical care of the patient with chronic ulcerative colitis will tax the ingenuity of any physician. Conscientious supervision is obligatory. Indifference or lack of cooperation may be responsible for a recurrence leading to a fatal termination.

SUMMARY

Chronic ulcerative colitis is a disease that must be thought of in terms of months and years. It is doubtful if a patient is ever cured, but with intelligent supervision the recurrences are usually well controlled.

The etiology is uncertain, and, as one would expect, the treatment is just as uncertain.

The diagnosis is made solely by the proctoscope. All other agencies are merely aids in making a more comprehensive diagnosis.

Skillful medical care is necessary for a favorable result. Surgical intervention should be limited to complications, and should be carried out during a remission when possible.

347 WEST BERRY STREET.

DISCUSSION

A. B. GRAHAM, M.D. (Indianapolis): Dr. Cartwright has given us a very complete composite picture of chronic ulcerative colitis or, as has been termed by other investigators, idiopathic or non-specific ulcerative colitis.

This disease may be said to be one of youth for the majority of the cases occur between the fifteenth and fortieth years. Statistics show that

children often are affected. In our work we have observed four cases under ten years of age.

Features common to this disease are chronicity, with recurrent attacks separated by free intervals; evidence of mucosal damage with a tendency to deeper bowel involvement; and progressive systemic changes which in the occasional case lead to death.

The prognosis in the grave cases is uncertain and should be guarded because of the danger of recurrence even at long intervals. In the medically treated cases, the mortality is from four to eight per cent. In surgically treated cases, the death rate is much higher.

Especially do I wish to mention the present day status of the etiology of this disease. In recent years not a few pro and con discussions have been presented by competent clinicians and investigators as to the etiology of chronic ulcerative colitis. Bargaen of the Mayo Clinic is convinced that it is a disease of bacterial origin. In 80% of the cases studied by him, his co-workers have been successful in isolating a pure culture of gram positive diplo-streptococcus which, in the opinion of Bargaen, must be regarded as an exciting factor in this disease. A large number of investigators in this and other countries have added proof to these deductions by experimental as well as by clinical observations.

In our University clinic as well as private work, a pure culture of the Bargaen diplo-streptococcus has been isolated by Dr. Hanes in 75% of our patients in whom procto-sigmoidoscopic studies had diagnosed chronic ulcerative colitis. Unfortunately, we have not (as has been done repeatedly by Bargaen and his associates) injected this organism into rabbits and reproduced the disease in a fairly large percentage of cases.

On the other hand, there is an increasing group of investigators and clinicians who do not accept the etiologic viewpoint advanced by Bargaen. Felsen in numerous publications the past three or four years has attempted to prove bacillary dysentery as the common etiological background of this disease. In 1936, Hurst of London called attention to the widespread distribution of bacillary dysentery in the British Isles, and he discussed the possible relationship of this disease to chronic ulcerative colitis. It is Hurst's opinion that the etiologic relationship of these two diseases is most often plausible, if not often proved. Crohn has very correctly stated that "The problem of the association of chronic ulcerative colitis and bacillary dysentery is frankly before the profession for investigation and decision. There may be no relationship, or a relationship in a small majority of cases, or there may be a significant connection. By whole-hearted cooperation, by scientific willingness, as well as alertness, an answer should be forthcoming or at least strongly suggested by this generation of clinicians, laboratory scientists and public health authorities."

The bacillary dysentery in Great Britain has

¹⁰ Winkelstein, Asher: The Etiology and Therapy of Ulcerative Colitis, *Amer. Jour. Digestive Diseases and Nutrition*, Vol. 3, No. 11, page 839, Jan., 1937.

¹¹ Eyerly, James B. and Breuhaus, Herbert C.: Treatment of Ulcerative Colitis with Aluminum Hydroxide and Kaolin, *J. A. M. A.*, 109:191-195, July 17, 1937.

¹² Felsen, Joseph: Intestinal Oxygenation in Idiopathic Ulcerative Colitis, *Arch. Int. Med.*, Vol. 48:786-792, Nov., 1931.

¹³ Soper, Horace W.: Treatment of Ulcerative Colitis, *Southern M. J.*, Vol. 29:901-904, Sept., 1936.

been largely of the Flexner and allied Sonne type. If a Flexner bacillary infection has any relationship with ulcerative colitis, it is that it may damage and lower the natural resistance of the intestinal mucosa. In the majority of cases, the Flexner bacilli die out completely with the result that other damaging influences, often secondary infections, affect the colon and produce the characteristic disease, chronic in character and with a great tendency to relapse.

Until the cause of this chronic disease has been determined, we must of necessity base our therapy upon some seemingly plausible etiologic factor. In our cases we follow the Barga viewpoint that the diplo-streptococcus is an exciting factor in this disease. When we are successful in obtaining this organism in a case diagnosed by us as chronic ulcerative colitis, we employ it in the form of an autogenous vaccine. The results secured by this vaccine have not been so brilliant as to make us optimists, yet it has proved more satisfactory than any of the other recommended methods of therapy. While Barga's opinion and therapy have been criticized, they have not to date been disproved. The best that can be said in their favor is that after employment of his therapy in several hundred cases, it continues to be employed by him in cases of chronic ulcerative colitis at the present day.

ABSTRACT

PRESENT CONCEPTS OF ACUTE CORONARY OCCLUSION: CLINICAL LECTURE AT ATLANTIC CITY SESSION

The concepts of acute coronary occlusion that Charles C. Wolferth, Philadelphia (*Journal A.M.A.*, Nov. 27, 1937), emphasizes in this discussion are: 1. The disease is one of the major causes of death after the fourth decade. There is no evidence on which to decide whether its frequency is increasing. 2. Little is known regarding its fundamental etiologic factors. Certain definite relationships to age, sex, race, diabetes mellitus and hypertension have been discovered. The influence of heredity, habits of life, occupation, physical and mental strain, or overwork, have been much discussed but have not been demonstrated clearly. 3. The evidence at hand suggests that collateral coronary circulation is not active in normal hearts and apparently develops only when there is need for it. The course of events after coronary occlusion, particularly the occurrence of myocardial infarction, depends on such factors as the size and position of the vessel obstructed, the rapidity of development of occlusion and the integrity of the adjacent circulation. 4. Acute coronary occlusion is usually an accident in the course of coronary arteriosclerosis. 5. Progress in the technic of electrocardiography has recently been made and the diagnostic value of this procedure enhanced. 6. Combined clinical and electrocardiographic study is valuable. 7. There is a wide range in the figures obtained by various workers for mortality during attacks. Statistics show that, among patients who survive attacks, excellent recovery is the exception rather than the rule. The hazard of cardiac deterioration, subsequent attacks or both is great.

THE PHYSICIAN'S COLLATERAL READING*

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There comes a time in the life of every physician when he becomes sated with the reading of clinical medicine. Yet read he must, because the habit has become part of his very life. The modern novel offers little to the professional man, the reading of the classics is very nearly a lost art; and if one turns to mystery tales, it is but a short time until he learns that it is always the ingenuous maiden aunt who perpetrates the heinous crime—the stories are all the same and boredom is inevitable.

Where, then, may the doctor turn for his collateral reading? There is a voluminous literature of quasi-medical works: books about doctors and books written by doctors which, by reason of their treatment or by their theme, supply just what the medically trained mind requires and afford many hours of delightful recreation.

A list of such books may well begin with the familiar and time-honored *Gold Headed Cane*. It was written by William MacMichael and first published in 1827. The book has gone through many editions and has appeared with forewords and prefaces written by many eminent men. The story, told in autobiographical form by the Gold Headed Cane, which was carried respectively by Doctors Radcliffe, Mead, Askew, the Pitcairns, and Matthew Baillie into the homes of the royalty and the nobility of eighteenth century England gives the reader an intimate view of the lives, the morals and the habits of these worthies.

Quite as well known as is this work, largely through the enthusiastic commendation of Sir William Osler, is the *Religio Medici* of Thomas Browne. A magnificent facsimile reprint of the first edition (1643) was issued "At the Clarendon Press" in 1909. While the book holds a prominent place among the classics, I have found it most difficult reading. The fault is mine, not the author's. So greatly did Osler admire the *Religio Medici* that at his death his library contained a copy of every edition, and the library of the late LeRoy Crummer contained a copy of every known edition of every work of Browne.

Almost automatically, I turn from this favorite of Osler's to some of the many delightful works of the beloved Sir William himself. Perhaps more than any other person, Osler knew the physician's inner man, and Osler's essays, always earnest, philosophical, and couched in beautiful English, have stimulated many a doctor to a fuller and a better life. His best known dissertation is perhaps the *Aequanimitas* and the preaching of equanimity which is its theme might well be taken to heart by every medical practitioner. The volume, which derives its name from this particular essay, contains among others Osler's addresses on "Teach-

* Address of the retiring president of the Indianapolis Medical Society presented at the annual meeting in Indianapolis, January 11, 1938.

er and Student," "Books and Men," "Teaching and Thinking," "Chauvinism in Medicine," and of particular importance "The Master Word in Medicine." The master word is of course "work," and every medical student and young doctor will profit by reading it. Osler's *Alabama Student* is a delightful biography of Dr. John Y. Bassett, of Huntsville, Alabama. The same volume contains biographies of Thomas Dover of "Dover's Powder" fame, John Keats, Oliver Wendell Holmes, Elisha Bartlett, William Beaumont and several other distinguished physicians, all written in Osler's inimitable style; and there is a particularly fine essay on "Harvey and the Discovery of the Circulation." Of his other essays, that on "Science and Immortality" and "The Old Humanities and the New Science" are outstanding. Perhaps the most delightful of all of his contributions to medicine and literature are the quite intimate and informal notes which abound in the *Bibliotheca Osleriana*, the catalogue of his library which he bequeathed to McGill University in Montreal. This catalogue exemplifies, better than any other work that I know, the profound learning and many-sidedness of this great teacher. Dr. C. N. B. Camac has published under the title *Counsels and Ideals From the Writings of William Osler* a delightful volume which, as the name implies, consists of a number of aphorisms and epigrams culled from Osler's many works. Selections by a man who is one of America's outstanding medical scholars make the volume inspiring and instructive, the sort of book that one likes to thumb at odd moments.

America's premier essayist among the physicians was, of course, Oliver Wendell Holmes. It seems strange that so few persons, even doctors, associate Holmes with medicine, for he was professor of anatomy at Harvard for many years and shares with Semmelweis the honor of having discovered the contagiousness of puerperal fever. Parenthetically, ownership of the first edition of the pamphlet bearing that name is the ambition of every American medical bibliophile. It is well nigh unobtainable. I have seen but a single copy listed and that was offered at \$625. Many of Holmes' medical essays are, of course, clinical dissertations, but written in such a delightful vein that they actually read like a novel. At the time of its publication, his *Homeopathy and Kindred Delusions* created a lively stir in medical circles. Everyone has at some time read the *Autocrat* series, and his poems, including the *Chambered Nautilus* and the amusing *Stethoscope Song* are among the literary gems of America.

W. W. Keen was an essayist of unusual ability. His published volume of essays may be read with pleasure and profit for the dissertations are eminently practical. He discusses frankly and fearlessly such important matters as "Visisection and Brain Surgery," "Medicine as a Career for Educated Men" and "The Debt of the Public to the Medical Profession."

John Chalmers Da Costa also has contributed some literary treats. His subjects tend to the cultural rather than the practical side of medicine and include such titles as *Dickens' Doctors* and *The Personal Side of Pepys*.

The *Surgical Memoirs* of James Gregory Mumford include several admirable essays and a number of short, well written biographies of eminent physicians.

One of the most pretentious of recent medical essays—it is of book length—is the much publicized *Rats, Lice and History* of Hans Zinsser. In style and diction it is a rare example of pure English, and the story it tells is authoritative and is vitally important to every physician and sanitarian.

The eminent Louis Pasteur has written: "From the life of men whose passage is marked by a trace of durable light, let us piously gather up every word, every incident likely to make known the incentives of their great soul, for the education of posterity."

The lover of biography has a wide choice among the stories of the lives of physicians. The first of the great medical biographies in America was written by James Thacher. Published in Boston in 1828, it is entitled *American Medical Biography: or Memoirs of Eminent Physicians who have Flourished in America*, and includes the lives of John and Samuel Bard, Josiah Bartlett, Zabdiel Boylston, John Syng Dorsey, John Jones, John Morgan, David Ramsay, Benjamin Rush, William Shippen, Joseph Warren, Casper Wistar and many others well known to students of colonial history. Thacher's style is most readable and the book is far more than a mere recital of biographic details. Samuel D. Gross' *Lives of Eminent Physicians and Surgeons of the 19th Century*, published in 1861, is virtually a supplement to Thacher's work.

Edward Warren's *Life of John Warren*, his father, who was Surgeon-General during the War of the Revolution and the first Professor of Anatomy and Surgery at Harvard University, is a storehouse of interesting information concerning the elder Warren and many of his contemporaries.

In 1931 the United States Government published a volume entitled *Medical Men in the American Revolution*, compiled by Louis C. Duncan. It gives a detailed account of many physicians of lesser fame who participated in the war for freedom.

Jesse Myer's *Life of William Beaumont* is an academic treatise which is almost unobtainable. It is a magnificent story of a magnificent man. To my mind no accomplishment of any American physiologist surpasses the marvelous achievement of Beaumont. His research, done with the most primitive apparatus and under most primitive conditions on the Island of Mackinac in the first quarter of the last century, stands today as the very foundation of our knowledge of gastric digestion.

Otto Jeuttner's *Daniel Drake and His Followers* portrays in a most lucid manner the story of the man whom Osler styled "the most unique figure in American medicine." Certainly no other man influenced medicine in the Central West as did Drake and his *Story of Cincinnati*, written in 1815, is said to have been largely responsible for the eventual growth and development of that great metropolis. His *Diseases of the Interior Valley* is styled by Garrison, "the greatest work on geographic medicine since Hippocrates."

Recently Nathan Goodman has painted for us a new portrait of *Benjamin Rush as Physician and Citizen*. The lapse of time has made it possible for the author to picture the real Rush without the strictures which the jealousy and envy of some of his contemporaries imposed upon him.

Fielding H. Garrison's *John Shaw Billings, A Memoir* is such a biographical sketch as only Garrison could have written. Few persons know that Billings was a native Hoosier and rose from a poor barefoot Switzerland County lad to creator and curator of the Army Medical Library, more familiarly known as the Library of the Surgeon-General. He was unquestionably the outstanding American medical bibliographer and, incidentally, was the designer of Johns Hopkins Hospital. Not only did he plan the buildings, but it was largely through his influence that Kelly, Osler, Halstead and Welch became members of the staff.

The masterpiece of all the medical biographies with which I am acquainted is Dr. Harvey Cushing's *Life of William Osler*. In choice of material, lofty style, and splendid diction it is magnificent and is as much a monument to the author as to his illustrious subject.

Of intense local interest is Elizabeth Moreland Wishard's story of the life of her father, *William Henry Wishard*, the "Grand Old Man of Indiana Medicine," whom many of us still remember as a veritable doctor of the old school.

Of the autobiographies, that of Samuel D. Gross is perhaps the best known and is particularly important because it records so much of the growth of medical education in America, as does also the life story of Charles Caldwell. The origin and growth of the American College of Surgeons is told in Franklin D. Martin's *The Joy of Living*. *With Saber and Scalpel* is the title chosen by John Allen Wyeth to recount his exploits as a surgeon in the War of the Rebellion.

With the euphonious title *Disciples of Aesculapius* Sir Benjamin Ward Richardson has written a two volume biographical work that is a literary treasure. Benjamin Rush, whom he calls the "American Sydenham," is the only American discussed, but the list of his subjects includes such notables as William Harvey, Vesalius, Leeuwenhoek, Paré, Laennec, the Hunters, Sydenham, Malpighi and many others equally famous. Richardson's style and diction, typical of the English school, commend the work to the appreciative reader.

Excellent as a biographical lexicon, but more

famous for its marvelous steel engravings than for its text, is Pettigrew's *Medical Portrait Gallery*. It contains some sixty magnificent plates, and most of the familiar likenesses of famous physicians, particularly of England's outstanding men, have been copied from Pettigrew.

Baron's famed *Life of Edward Jenner* is a collector's treasure, one of the greatest medical biographies of all times. It not only tells the story of Jenner the physician, but of Jenner the scientist. One is convinced after its perusal that the discovery of vaccination against smallpox was not merely a happy accident.

Sir Edward Cook's *Life of Florence Nightingale* is classical, as is Sir Squire Sprigge's *Life and Times of Thomas Wakely*, who was the first editor of the *London Lancet*.

The very recent biography of Marie Curie, written by her daughter Eve, has been much publicized. I have heard Victor Heiser decry what he calls the "feminist movement" which allots to Madame Curie all of the credit for the discovery of radium and leaves poor Pierre to shine, may I say, by reflected radio-activity.

It is interesting to note the renaissance of interest in the history of medicine. This is evidenced by the fact that all but seven of the recognized medical colleges in the United States include medical history in their curricula as a required subject, and practically every new text book on medicine prefaces each chapter with an historical review. Because of my own interest in historical medicine, it is but natural that I should recommend for reading some works on that subject. Every physician's library should contain Garrison's *Introduction to the History of Medicine*. It is a veritable storehouse of all of the important events in the history of our great profession, with bibliographic references which make it invaluable.

Osler's lectures, delivered in 1913 at Yale University, on the Silliman Foundation, and published under the title *The Evolution of Modern Medicine*, discuss medical history from the Egyptian period through the era of Lister which the author calls the "Rise of Preventive Medicine." It is written as only Osler could write and the word "charming" is applied with discretion.

No medical work in the English language exceeds in interest and educational value Mortimer Frank's translation of Ludwig Choulant's *History and Bibliography of Anatomical Illustration* which was published in German in 1852. It traces anatomic illustration from the crudities of the pre-Vesalian era through the epoch-making *De Corporis Humani Fabrica* with its magnificent Van Kalker illustrations. Human anatomy, as one knows it today, dates from this *opus magnum* of the far famed Vesalius.

It was Choulant's book which stimulated LeRoy Crummer to undertake the collection of his justly famous medical library. Upon reading the book, he determined to acquire every anatomic work mentioned therein and before his death had ful-

filled his ambition. The results of Crummer's efforts have been immortalized by Dr. A. G. Beaman in a *Doctor's Odyssey, a Record of Dr. LeRoy Crummer*. I know of no other book which so beautifully expounds the amenities of medical book collecting. But do not confound this volume with Victor Heiser's *An American Doctor's Odyssey* which, much to the surprise of the author, has reached the astounding publisher's mark of two hundred thousand copies and has been translated into twelve languages.

Dr. Harvey Cushing's *From a Surgeon's Journal*, in which he recounts his experiences with the American Expeditionary Forces, is a splendid work in content and in style. Cushing's keen powers of observation, his splendid sense of proportion, his faultless English, combine to make it a truly great book. I have often wondered if it might have been inspired by the *Military Journal During the American Revolutionary War* by the same James Thacher of whose biographical lexicon I have previously spoken. Thacher was present when Washington was made commander-in-chief of the revolutionary forces, when Andre was hanged, and on many other occasions which have made history, and he tells his story in as pure and well chosen English as does Cushing.

For the man who is interested in the pathological lesions which have carried to the world beyond some of the great and near great, there is a considerable literature. W. W. Keen has written of *President Cleveland's Operations in 1913*. George M. Gould in his *Biographic Clinics* discusses the ill health of De Quincy, Carlyle, Darwin, Huxley and Browning, and in two volumes entitled *Postmortems* and *Mere Mortals*, Mac Laurin has told of the aches and pains of Martin Luther, Doctor Johnson, the Tudor Kings and Queens, Spinoza, Anne Boleyn, Jeanne D' Arc and many more, not the least of whom are Mr. and Mrs. Pepys.

The doctor who rides a hobby may, if he wishes, greatly enhance the pleasures thereof by acquainting himself with some of the collateral literature. The Shakespearean scholar, for example, will find numerous magazine articles and entire books devoted to the medical knowledge of Shakespeare. For the amateur archaeologist, there is Sir Marc Ruffer's *Studies in the Palaeopathology of Egypt*, Smith and Dawson's *Egyptian Mummies* and the recently published contributions on the pre-Columbian origin of syphilis by Richard C. Holcomb. The collector of Indian relics will enjoy Corlett's *The Medicine Man of the American Indian*.

One of my medical friends who hunts rabbits with bow and arrow was delighted recently to find in Johnson's classical translation of Ambroise Paré's *Surgery* half a dozen pages devoted to the surgical removal of arrows from the human body. The book was published in 1678 when the bow and arrow were an important part of the equipment of soldier and hunter.

There is one type of purely clinical medicine which is a rare treat, even to the jaded mind of the tired doctor: the classical contributions that have come down from some of the master minds. Heberden's description of angina pectoris, for example, presents a clinical picture that one can never forget and, though written in 1768, cannot be improved by the addition or deletion of a single word. So, too, Addison's description of the disease of the adrenal cortex, which bears his name, shows a clinical acumen that is stimulating to every thinking physician who reads it.

Appreciating the clinical and cultural value of making readily available the more important of such contributions in the original, there was organized in England, in 1843, the famed Sydenham Society. It functioned for fourteen years. After a lapse of two years, it was reorganized as the New Sydenham Society and flourished until 1907, proctored during the latter years by no less a genius than Jonathan Hutchinson. The two societies published numerous important works and commissioned scholars to translate from the Greek and Latin classics and from modern foreign languages. There resulted such monumental volumes as Francis Adams' translation of *The Works of Hippocrates* and *Paul of Aegina*. They published popular editions of the works of Harvey, Addison, Gull and many others.

Quite recently a number of altruistic authors and publishers have cooperated in a similar though less pretentious program, and we now have available such works as Ralph Major's *Classic Descriptions of Disease*; Long's *Selected Readings in Pathology*; Thom's *Chapters in American Obstetrics* and Fulton's *Selected Readings in the History of Physiology*. In 1936, under the able editorship of Emerson Crosby Kelly, there appeared a monthly journal, *Medical Classics*, which plans to publish all of the more important medical contributions that have come down through the ages in their original form and in translation.

There are three medical journals of quite restricted circulation which should be more generally known to the profession: *Annals of Medical History* edited by Dr. Francis R. Packard, *The Bulletin of the History of Medicine*, published by Johns Hopkins University under the editorship of Dr. Henry E. Sigerist, and *Medical Life* of which Victor Robinson is editor. While these are published primarily to provide a medium of expression for those interested in the history of medicine, each copy contains articles which are purely cultural and not necessarily of historic interest.

In the realm of fiction, there are numerous books in which the life and work of the physician constitutes the central theme. Of these, Ian MacLaren's *A Doctor of the Old School* has probably enjoyed the greatest popularity.

Fiction written by doctors has long entertained a huge audience. In England, A. Conan Doyle and Somerset Maugham have perhaps been most popu-

lar, and in this country, S. Weir Mitchell has written a number of best sellers. It is not generally known that Keats and Oliver Goldsmith were graduated in medicine, but it is a question whether either of them ever practiced.

There is just one of the recent novels of which I would speak. At present it heads the list of best-sellers in England. The publisher's blurb on the jacket describes it truthfully as "A great novel about a doctor by a doctor who is a great novelist." I refer to the *Citadel* by A. J. Cronin. Briefly, it tells the story of a young English boy who, after all of the vicissitudes imposed by poverty, gets his degree in medicine and starts his practice, fired with ambition to succeed along the strictest ethical lines. He marries just the right girl and together they succeed in spite of numerous pitfalls. The doctor finally reaches the London of his dreams and, after a bitter struggle, by mere chance he becomes the physician to a group of the elite. Influenced by this new environment, and by a former chum who has become a "society doctor," he becomes avaricious and prostitutes his profession for monetary gain. Of course, in the last chapters, after the tragic death of his wife, he sees his error and, contrite in heart, retires to a small village there to practice according to the code. In short, the book is an exposé of the possible machinations of the medical racketeer. Unfortunately such books do not often reach the men who need the sermons which they preach.

With the interest now generally manifested in the socialization of medicine, a great many doctors will want to read the recently published *Socialized Medicine in the Soviet Union*. From the facile pen of Professor Henry E. Sigerist, unquestionably today's premier authority on the history of medicine, the book reflects a five year study of the subject, with two summers' residence in Russia for personal observation. Dr. Sigerist actually learned the Russian language in order to get his information at first hand. The chapters on medicine are prefaced by a review of the Marxian theory which is, of course, the foundation of Russian socialism. Sigerist defines his purpose in writing the book as follows: "My problem in this book is the problem of socialist medicine. What is its attitude toward health and disease? What is its attitude toward science? Applied to life, what form of medical service does it determine? What place has medicine in the new social order? Sigerist's answers to these questions have been variously evaluated by different reviewers, but I believe that each reader must make his own interpretation of Sigerist's implications concerning socialized medicine in America. Suffice it to say that he makes this specific statement: "The rise of scientific medicine in America was particularly brilliant. In less than half a century, America not only caught up with European medicine but even surpassed it in many respects. And yet, in spite of the fact that the United States today

possesses the best hospitals and laboratories in the world and has a very large number of well trained physicians and nurses, the medical problems of the country are by no means solved. . . . Splendidly equipped technically, American medicine is still backward socially and the result is that at the present time medicine has infinitely more to give than the people actually receive. The causes of this maladjustment are obviously to be sought in the whole economic and social structure of the country."

About two thousand years ago it was written in Ecclesiastes, "Of making many books, there is no end." It is obvious that such an exposition as this might, like the brook, run on forever, but I have limited myself to some of the books in my own library of which I have first-hand knowledge. The number of near medical works is legion and the interested reader has a wide choice. If I have but stimulated an interest in literature of this type I shall have fulfilled my purpose.

Read the doctor must, and when finally the quasi-scientific works grow stale, there are always the Psalms of David and the Sermon on the Mount.

Author's Note: Most if not all of the books mentioned in this article are obtainable from the Mears Library of the Indianapolis City Library or from the library of the Indiana University School of Medicine.

ABSTRACT

THE INTRATHECAL USE OF PRONTOSIL SOLUBLE: REPORT OF CASE OF TYPE III PNEUMOCOCCUS MENINGITIS AND SEPTICEMIA TREATED WITH PRONTOSIL SOLUBLE, WITH COMPLETE AUTOPSY REPORT

JOSEPH MILLETT, Hempstead, N. Y. (*Journal A.M.A.*, Dec. 25, 1937), reports a case of type III pneumococcus meningitis and septicemia in the treatment of which prontosil soluble was given intramuscularly and intrathecally. The patient died of an overwhelming infection of the type III pneumococcus. There is some experimental and clinical evidence which, although meager, points to the fact that sulfanilamide has some therapeutic action against the type III pneumococcus. The initial spinal tap in this case contained an abundance of type III pneumococci, the pus was fairly thick and greenish and the cell count was high, yet a culture taken after the administration of 60 cc. of prontosil soluble intrathecally revealed only a scant growth of the organism. The necropsy revealed that prontosil soluble administered intrathecally diffuses generally throughout the central nervous system with apparent ease and a minimum of irritation. It does not affect subsequent drainage and mixes intimately with the spinal fluid. Because of its proved diffusibility throughout the central nervous system, prontosil soluble is recommended for intrathecal medication, augmented by the oral use of sulfanilamide, in those meningeal infections which have been shown to respond to these compounds.

PROPER PRESCRIBING*

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"Four-fifths of all physicians permit pharmaceutical houses to do their prescribing." This proportion is, perhaps, too high for general acceptance but the statement does exhibit a discrediting state of affairs. The increasing number of therapeutic agents of unknown composition and action which, by means of sample, blotter or circular, find their way around the Council on Pharmacy and Chemistry of the American Medical Association is convincing evidence that such agents find employment among members of the medical profession. The therapeutic claims made for such agents too frequently find their genesis in the commercial purpose of the manufacturer and not in the findings of a recognized scientific laboratory.

Two hundred pharmacists reporting on their most recent one hundred prescriptions offered the somewhat disconcerting information that twenty-five per cent were wholly or in part for proprietary products. In 1930 Dr. Cree of Detroit examined the prescription files of a large number of druggists and found that 54% were for pharmacopeial drugs, 17% for a mixture of pharmacopeial and proprietary preparations and 29% were wholly for proprietary preparations. Although not stated, we are perhaps justified in assuming that the composition and action of a large proportion of these proprietaries were unknown to the one prescribing, faith in such remedial agents resting wholly upon claims made by the producer.

It is not to what may be prescribed that I wish to refer but to the lack of intelligence exhibited. We cannot pass unnoticed, however, those pharmaceutical houses who lend their efforts to scientific investigation of therapeutic measures without commending their efforts and assuring them of our appreciation. But what individual, licensed by the state to practice medicine, is to be excused for going down the shelves of a drug store and selecting package medicines labeled "for cough," "for heart," etc., to be used in his practice? This has been done and is being done by certain physicians, but how much larger is the proportion of those who, likewise forgetful of the importance of a rational prescription, pass on to patients samples whose composition is hidden and concerning whose action the user has no knowledge perchance except the suggestions of the manufacturer whose interests are wholly commercial.

Emerson has said, "Man cannot speak but that he judges himself; with his will or against his will he paints his picture to the eyes of his fellows by every word." From such blind medication we draw two conclusions: indifference or lack of intelligence. Likewise from the flood of pharma-

cologically unknown remedies sent out by producers we must draw two inferences, racketeering or a reflection upon the intellectual integrity of the recipient. Much of man's activities have root in propaganda or high powered salesmanship; reason, intelligence and good judgment are not accorded their due position as incentives to action. Perhaps the medical man attempts the evasion of his full measure of responsibility by rationalizing which is the will to believe.

If a high government official, by picture and words, lends credence to the claims for a certain cigarette, or the wife of a world prominent executive passes in judgment upon a certain brand of soap, or a gentleman of the pulpit testifies as to the effectiveness of a certain cathartic, or a glib-tongued philosopher sells himself to a remedy for the correction of the infirmities of women, such episodes do not lend pardon to the physician for like intellectual infirmities.

It is not my purpose to measure my words against any preparation whose ingredients in quantity and action are known, for the final excellence of many preparations owe this quality to the pharmacist and not to the physician. To prescribe therapeutic agencies of unknown action and composition is but to strike warm hands with quackery and lends encouragement to a spirit contrary to ethical and scientific medicine. Will some one point out to me the difference between such blind medication and self-medication by the layman?

Every physician is the recipient of free publications whose advertising is of such low ethical standard that even articles of merit contained in such publications are doubted, but high powered salesmanship is evidently profitable among physicians.

Early medicine consisted of a mixture of superstition, religion, mysticism and empiricism and an analysis of present day therapy persuades one that these elements still persist. We cannot deny that there is a psychic influence in therapy which influence if used legitimately and to legitimate ends advances ethical medicine, but used as mysticism it condemns the user and beclouds the profession.

It is not to be assumed that the foregoing lines serve as strictures upon the practice of medicine. Medicine in its largest meaning transcends any man or group of men, nation, race or people. Like natural laws which may be misinterpreted but not changed, the principles which established the profession of medicine are immutable. A piece of metal may be changed from shape to shape but gravity remains the same. The individual who accepts medicine as his field should be conscious that he has placed himself in line with great forces and that to the degree in which he endeavors to live such principles he contributes honor to himself and to the profession of which he is a member.

* President's address presented before the Union District Medical Association at Brookville, Indiana, October 28, 1937.

THE JOURNAL OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL
PROFESSION OF INDIANA

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FEBRUARY, 1938

Editorials

THE SYPHILIS PROGRAM

A little more than a year ago Dr. Thomas Parran, Surgeon General of the United States Public Health Service, announced a program of venereal disease control that at once attracted the attention of the medical profession of the country. In addition, it interested the public press, and many metropolitan newspapers at once entered into the spirit of the campaign with great zeal and have continued to carry readable news stories as to the progress of the battle.

At a meeting in Chicago in November of 1936 practically every state medical society pledged its support to the Parran program and since that time each of these groups has made much progress. In our own state, we apparently were a little slow in starting, and this was due to the planning of a rather elaborate set-up which required a great deal of thought before it was perfected. However, after our committee had decided upon a program and had the approval of Association officials, little time was lost in putting it into effect.

At the French Lick session last October Dr. F. R. N. Carter, committee chairman, presented a report which was adopted by the House of Delegates. Efforts have been made to interest each of our county societies in the program, most of which already have appointed local committees to take charge of the work. Much remains to be done; a few of our county organizations need more stimulus, but we believe that in due time all will be functioning.

In THE JOURNAL for January the Association committee presented a set of resolutions recently adopted, resolutions that mean something and which we believe are to be carried out to the letter.

Among these is the recommendation that the State Board of Health hold a meeting, the program of which is to be devoted to the subject of infectious disease control. It is suggested that local health officers be advised just how far they may go in enforcing existing laws on the subject. Incidentally, the committee urges the consideration of our present marriage laws and possible changes that may be under present consideration, this suggestion being in line with our recent editorial comment. Other suggestions made in these resolutions, are very practical.

Some fifteen months have elapsed since Dr. Parran announced this nation-wide program and in that time the groundwork has been prepared. Sufficient serological examinations have been made in various large groups to establish the fact that approximately ten per cent of our population is afflicted with syphilis. The large employers of labor have come to the conclusion that it is well to know something about this matter and in recent months our educational institutions have become interested to the extent that we now have reports of serological tests in various student bodies.

The point is this: The campaign still is on and we are assured that it will continue to be a very live issue with the Public Health Service—so much so that in communities which choose to ignore it, the Service will step in and take full charge, as it has the legal right to do. We urge all county societies to continue such plans as already are in operation and to those few which have done nothing about it, an immediate compliance with Dr. Parran's requests is suggested.

Headquarters stands ready to supply information on the subject and we are sure that the State Board of Health can be depended upon to assist in the formation of a local program for any of our groups.

THE 1937 SLAUGHTER

40,000 SLAIN!

Such a heading in a news item would attract the attention of every reader; there would be a popular demand that something be done about it, that steps be taken to make a repetition of such events impossible. Late in December of 1937 newspapers carried such a story. That astounding figure represents the death toll from automotive accidents in 1937.

Many times more than forty thousand represents the number of human beings who were maimed or crippled, many of them permanently, from the same cause. Aside from the loss of life, then, the economic cost from these accidents reaches gigantic proportions. Legislative bodies, municipal, state and federal, enact laws with the idea of exerting some control over this deplorable situation; state highway departments employ the keenest engineering minds to survey local traffic conditions and to

supervise the planning and construction of highways. Millions are spent in abolishing grade crossings and in separating crossings where two or more important highways meet. Our roads are well marked, even to the point of notifying the motorist that at a given distance ahead there is a "bump" or a "dip." Curves in the arterial routes are advertised well in advance; the approach to school zones is heralded so that drivers may be on the alert for kiddies in those neighborhoods. Speed zones are well established, varying with the density of population.

Our courts were at first a little slow in awakening to the fact that they had a mighty important role in the program, but they have come to recognize that they, too, must cooperate in bringing about the necessary changes in the indiscriminate operation of these modern juggernauts.

Drivers license laws are being enacted in more and more states each year, until it appears that within the next few years such a license will be required in every state, as it should be. Many states * put candidates for licensure through a very stiff examination, including a visual test. In Indiana, under a new law, juvenile candidates for a driver's license are required to take a driving test under the direct supervision of the state police department. The test recently given a junior whom we know would indicate that it was far from a perfunctory matter, for the report sheet showed the behavior of the candidate under most every driving condition.

Just what is to be done toward bringing a marked reduction in this annual holocaust is a problem that is bothering our legislators, and the general public is becoming decidedly interested, and when Mr. John Q. Public interests himself in a problem in a really big way, then *something* will be done about it.

The editor of *Southern Medicine* has for some time editorialized the subject and has come to the conclusion that instead of the single center line along a highway, a double line, with the lines two or three feet apart, would help in the solution of the problem. We can see how this would help with the average driver, but with the road hog it would add not one whit to the solution, because this bane of motoring, whether on a two-lane or a four-lane highway, persists in hugging the center of the road and refuses to give an inch to traffic in either direction. The thing to do with him is to hale him before a court and give him a stiff fine for his stubbornness. That procedure is being recommended to the highway police of a neighboring state.

That something must be done is admitted by all. Most state medical organizations have special committees on the subject, indicating the interest of the medical profession.

A discussion of this question would be considered incomplete if we failed to mention the admixture of alcohol and gasoline, a subject that we have discussed in several previous editorials. These two products are wholly incompatible even though thou-

sands of motorists over the years have attempted to prove their miscibility. Here, we believe, our courts can be of the greatest assistance. Too often do we read "sentence suspended" in cases where motorists are found guilty of drunken driving. Our opinion is that every motorist found guilty on this charge should have a jail sentence, even though it be for but one day. Such drastic measures will go far to bring about a change in this one phase of the question. The Chicago courts evidently hold to this opinion, for they have rigidly enforced this provision of the law recently and have not even allowed New Year celebrants to escape jail terms when convicted on this charge.

The medical profession of Indiana stands committed to the closest cooperation in any movement which aims to remedy the causes of traffic accidents, and the whole profession eagerly looks forward to joining in some program for safe, sane, and sensible driving.

PUBLICITY IN MEDICINE

A conference of science writers¹ was held at the headquarters of the American Medical Association in Chicago, October 30, 1937, presided over by the president of the Science Writers' Association, Mr. Waldemar Kaempffert, who is an editor of the *New York Times*. In opening the meeting, Mr. Kaempffert made a short address in which he discussed the relation of his organization to the medical profession and he opened wide the gates for a generous discussion of the question. Mr. Kaempffert did not mince words. He declared that what goes on in medical laboratories has come to be news—news that the public wants to read and know about. This is true to such an extent that certain writers for the lay press specialize on this material, and most of them do a very good job of it. Frequently these writers find themselves stymied because of the medical code of ethics; too often they seek information only to be told that it cannot be given because of the code. As Mr. Kaempffert bluntly put it, "Medicine is the only profession that is muzzled. It is muzzled by itself. There is the utmost freedom of speech, thought and expression among chemists, physicists and engineers, but not among medical men." He also said that, "Medicine is also the most pretentious of all the professions, and the least scientific. It gives itself far too many airs; it gives itself airs because it has what it calls 'ethics'." He declared that the medical man with a real news message is prohibited from giving the story to a newspaper because of this code of ethics while the quack, with no ethical qualms, "makes" the news page. However, Mr. Kaempffert is of the opinion that this barrier is breaking down a bit, an opinion with which we agree.

* Science Writers' Conference. *J. A. M. A.* Organization Section, Jan. 1, 1938, page 1E, and Jan. 8, 1938, page 10E.

Last October, Dr. Charles Goodrich, president of the New York State Medical Society, said: "Any group dependent upon the people for their daily bread should feel that what is good for the public is good for them. Today, the modern group in business and industry, as well as education and science, makes an effort to interpret itself to the public. Organized medicine alone must not remain cloaked in an inscrutability sure to be misunderstood." This comment expresses very clearly the thought that is in the minds of medical leaders everywhere. Organized medicine senses a growing demand for authentic information on health problems, and from whom can these answers come except from the physician? Many of our state organizations have answered the question to some degree by naming committees to take care of this important matter; Indiana long ago pioneered in this through the organization of our Bureau of Publicity, a committee known throughout medical America for the work it has done and continues to do. New York organized a Public Relations Committee which is doing a monumental work, and other state societies are falling in line and in a short time we hope to see every state organization enlisted in this work.

It is fitting that such information should come from an official committee rather than from individuals. The medical profession is made up of human beings and, this being so, there is within our group a small number who would take advantage of such situations if the bars were let down and the result would be that a great deal of harmful misinformation would reach the lay press.

The National Association of Science writers, composed of those who regularly supply news stories of what is going on in the scientific world, stands ready to cooperate to the fullest extent. Its members have declared themselves in favor of going directly to official committees for their information and they have every right to expect accurate, authentic information from these groups. Further, we believe that our larger county medical societies would do well to name a committee for this purpose. In the smaller communities, the press has become interested in health problems and reporters constantly are asking individual physicians for opinions. All such information, of course, should be credited to the county medical society, and not to an individual.

SCIENTISTS COME TO INDIANA

In January of 1826 a band of scholars who were to go down in Hoosier history as "the boat load of knowledge," and become recognized as the leading scientists of their day, floated down the Ohio River and settled in New Harmony, making Indiana for a time the scientific headquarters of America. One hundred twelve years later, during the final days

of 1937 and the first days of 1938, Indiana again became, for a week, the scientific center of America when more than 5,000 members of the American Association for the Advancement of Science convened in Indianapolis for their annual session and carried out a program of talks, demonstrations and displays which embraced practically every phase of modern science from the cosmic ray to studies in the character of hybrid progenies of potatoes!

Never before, perhaps, was such an opportunity offered members of the medical profession of Indianapolis and of Indiana to hear so many outstanding men in fields of general science, with such men as Compton, Conklin, Moulton, Kline, Kahn, Kolmer, Kittredge, Parran, and Graham appearing on the programs for the 1,500 scheduled sessions.

It is to be regretted that a lack of facilities made it impossible to carry into effect the idea that was originally proposed of having the Indiana State Medical Association meet jointly with the A.A.A.S. Had this been possible, the opportunity would have been available for every physician in the State of Indiana to have heard many original papers which will have their place high in the annals of science for 1937.

Interest for the physicians was, of course, centered in the subjects that had to do with medicine, and chief among these was the symposium on syphilis. At the conclusion of this program one physician said, "Anyone who heard the papers and the discussions could not help but gain a profound knowledge of this disease."

In addition to the program on syphilis, an outstanding talk on a medical subject was the address on "Biophysical Studies of Chronic Radium Poisoning" by Robley D. Evans, of the Massachusetts Institute of Technology, for which he won the Theobald Smith award in medicine. Dr. Evans showed the new methods of diagnosing radium poisoning which had made it possible to treat with success in its incipient stages this disease which heretofore had been unalterably fatal. A very interesting medical talk was that given by Elizabeth Stewart upon "Mayan Biology and Medicine" as a part of the symposium upon Maya civilization.

Nobel Laureate Arthur H. Compton in talking about "Some Physical and Biological Consequences of the Discovery of X-Rays" pointed out that there is not a single field that is not affected by the progress made in the understanding of the cosmic rays. Indiana was particularly pleased with the national recognition accorded Dr. Walter Bruetsch, of Indianapolis, for the work which he has done on schizophrenia.

It is to be hoped that some time in the future Indianapolis will have facilities to enable the Indiana State Medical Association to meet in Indianapolis at the same time that the American Association for the Advancement of Science meets there. When and if such a thing comes about, it will be a memorable event for Indiana physicians and will mark a milestone in Indiana medical history.

SECRETARIES' CONFERENCE AND NORTHWEST CONFERENCE IN CHICAGO

This year the secretaries of Indiana county medical societies will have an opportunity to attend the meeting of the Northwest Conference which will be held on Sunday, February 13, in Chicago, immediately following the Secretaries' Conference which will be held in Chicago on Saturday, February 12. Programs for both meetings are printed in this JOURNAL on page 89.

Representatives of more than sixteen state societies and officials of the American Medical Association regularly attend the Northwest Conference, and Indiana secretaries thus are given an unusual advantage. Our own Dr. R. L. Sensenich of South Bend is president of the Northwest Conference this year.

Attendance at these meetings is not limited to secretaries. Any member in good standing of the Indiana State Medical Association who is interested in the programs will be welcome.

Editorial Notes

COUNTY MEDICAL SOCIETIES WITH 100% PAID-UP MEMBERSHIP FOR 1938

Carroll County: Dr. E. H. Brubaker, Secretary.
Dearborn-Ohio Counties: Dr. J. C. Elliott, Secretary.
Scott County: Dr. J. P. Wilson, Secretary.
Sullivan County: Dr. J. B. Maple, Secretary.
Washington County: Dr. C. B. Paynter, Secretary.
Whitley County: Dr. O. F. Lehmborg, Secretary.

This month's topic-of-the-month is "Syphilis," and it is hoped that every county society will give this subject a place upon its February program. Publicity committees can give the subject prominence through talks to medical and lay audiences. Let's make Indiana a safer and happier place to live by eliminating syphilis! Do your part!

We do not expect county societies to devote one whole program each month to the topic-of-the-month, realizing that many societies have only one meeting each month, but it is hoped that each society will devote at least a few minutes of one meeting each month to the subject selected for emphasis in that month.

A report has been received from members of the Indiana State Board of Health who attended the Washington conference on "Better Care for Mothers and Babies" and it is published in this issue, though it had not been reviewed by the Executive Committee or any other committee of the Indiana State Medical Association at the time of going to press.

More than two million pounds of soot fell upon the city of Indianapolis during last December, according to the combustion engineer of our state capital. That of course accounts for the "smog" conditions that prevail in that otherwise beautiful city during the winter months. The question of control of this health menace is becoming a serious one in many cities. An acquaintance, after spending a month in St. Louis, advises us that the situation there is also acute.

Several of the medical journals reaching us within the past few weeks have carried warning notices concerning swindlers who are working the insurance directory racket once more. Some physicians have been talked out of fifteen dollars for the privilege of having their names listed in a directory which does not exist. We have had no reports of any Indiana physicians who have felt an urge to invest, and perhaps this word of warning will serve to restrain any who might be tempted in the near future.

The publicity committee of the California Medical Association, which means Fred Warnshuis, most competent secretary of that live organization, is doing a good job of publicizing the June meeting of the American Medical Association in San Francisco. Fred has again directed attention to the rule that all reservations for hotel space *must* be made through his office at 450 Sutter Street, San Francisco, as all hotel space has been covered by a blanket reservation. A letter to Dr. Warnshuis, specifying the accommodations desired, will receive prompt attention and confirmation of the reservation will be made.

The Copeland Bill (S. 3073) is now in the hands of the Committee on Commerce of the United States Senate. The bill is printed in full in THE JOURNAL for January on page 35. Every member should give his careful attention to this Bill and it would help if our two Indiana senators were advised just how we feel about it. We believe that the Senate will be ready to listen to some degree of reason in this matter, since it recently displayed an unusual interest in the developments of the "Elixir Sulfanilamide" affair of a few months ago to such an extent that the Department of Agriculture was asked for a special report on the matter. The Copeland Bill covers a phase of the drug situation that is of great importance to all of us and to the public; it is in no way drastic and there seems no logical reason why any member of the Congress might take exception to it.

The President's Page this month contains the list of "topics-of-the-month" outlined by Dr. Baker to be used as the topics for discussion in your county medical society. Here is a year's work outlined ahead of time, and each of you will have plenty of opportunity to fortify yourself for intelligent and comprehensive discussion of each subject as it is presented to your local group.

Reports indicate that the death total from automotive accidents in Indiana for 1937 reached the stupendous total of 1,435, an increase of 86 over the casualties for 1936. With this figure before us, we go on and on, talking about faster cars and "crabbing" about the driving limitations placed upon us. Speed and more speed is the current demand. Only a few years ago we were content with a horse and buggy gait, but today it seems that anything under sixty per hour is a snail's pace. This wholesale slaughter must be checked, though we shall have to admit we do not know just what to do about it.

A pre-view of the program for the annual Secretaries' Conference to be held at the headquarters of the American Medical Association, February twelfth, indicates that this meeting will uphold the record of previous years in the matter of program interest. The Conference has come to be one of the important meetings of the year, the attendance becomes greater each time, and the discussions are of increasing importance to organized medicine. This year the meeting will be held in conjunction with the annual meeting of the Northwest Conference, the program for which appears in this number of THE JOURNAL. Both of these meetings are open to all members of the Indiana State Medical Association.

One of our large county medical societies plans an innovation in their programs for 1938 in that they expect to hold meetings in the smaller communities in the county. For some time past, several of our county societies have adopted this plan, and it seems to have met with great success. It is certain to interest the members in the outlying communities, and in these days of automobile convenience, the matter of a few miles is inconsequential. One of the smaller societies has consistently maintained a high attendance percentage even though some of its members have had to travel thirty to forty miles to attend meetings at various points in the county. This is an excellent plan for societies which have a scattered membership.

Every Association member should read very carefully the message of our incoming president, Dr. Herman Baker, in the January JOURNAL. Incidentally, the page carried a cartoon by Karl Kae Knecht, of Evansville, giving a presentable cartoon likeness of Dr. Baker at the helm of the good ship *Indiana Medicine*. Each spoke of the pilot's wheel is named for a plank in Dr. Baker's program for 1938. He plans to discuss one of these each month and has recommended that each subject be made a special order of business in each county society for that particular month. Our members will profit by carefully following the messages from our president, who has made a very commendable start for this year.

Dr. Francis A. Long, for seventeen years the editor of the *Nebraska State Medical Journal*, died at his home in Madison, Nebraska, November 24, 1937, only four days after the close of the annual conference of secretaries and editors in Chicago. Dr. Long was always to be found at these annual gatherings and had acquired an acquaintance with practically every physician engaged in medical journalism. His quaint, sometimes poignant and cryptic comment on affairs medical were read by many outside his home state. A gentleman of the old school, he will be sorely missed by his many friends over the country. For the time being the editorial affairs of the *Nebraska State Journal* are in the hands of Dr. Herman A. Jahr, of Omaha.

Again we call attention to the matter of registration at the A.M.A. convention in San Francisco. Only Fellows will register, officially, and be entitled to the badge that admits the wearer to all section meetings, exhibits, etc. We remind you, also, that all members of the Indiana State Medical Association are members of the American Medical Association, but they are *not* Fellows. Fellows are those members who have made application for A.M.A. fellowship on the blanks obtainable from Secretary Hendricks and who have paid the annual fellowship fee of seven dollars. This matter should be attended to at once; do not delay until you are ready to leave for San Francisco.

The "Elixir Sulfanilamide-Massengill" episode which cost the lives of some four-score citizens of this country should indelibly stamp upon the minds of all physicians the oft repeated admonition to be sure that your prescriptions call for Council-accepted products. The A.M.A. Council on Pharmacy and Chemistry is an old, time-tried institution. Its members have no axes to grind and their

recommendations should be accepted without question by every member of the medical profession. When the detail man calls on you, just remember to ask him about this very important point, and if his reply is in the negative or is of an evasive character, you will be wise to terminate the interview at once.

Several of our county medical societies recently have adopted fee schedules in regard to obstetrical services and house calls, and numerous Indiana newspapers have published the schedules. One list has received rather wide notoriety, probably because it specifies that delinquents who are indebted to one physician for services given during a confinement will not be accepted for care by another physician who is a member of the county society unless the unpaid charges are settled. Physicians in the county expect fifty per cent of their nominal charges for confinement cases to be paid at the time of delivery. This is not an unreasonable request and it seems probable that it would work to the advantage of all concerned. It is the first time in several years that a published fee schedule has come to our attention.

The United States Circuit Court of Appeals in Chicago recently upheld the Federal Anti-Filled Milk Act, a proceeding which will meet with favor in health circles. "Filled" milk is made by extracting the butterfat from milk and substituting coconut oil, a cheap product and one that certainly takes much of the value from what is known in trade as canned or evaporated milk. "Filled" milk is not a new product, for it was noted on the shelves of a grocery concern several years ago at a time when that concern was filling most of the food orders for indigents in our community. Strange to say, it continued to have a good sale, evidently because the purchasers did not know what they were getting other than a "bargain price" in milk. Milk is too valuable as a food product and is too essential to the health of our people to permit it to be tampered with in such a manner, and this recent court decision, effectually stopping a reprehensible practice, is hailed with relief.

Publicity concerning county medical society meetings is a matter that may well be considered. In these days when the public is more and more interested in matters of public health, such news stories are very interesting. On special occasions, when a society has a nationally known speaker, one whose subject is such as to be of more than casual interest to the public, it might be well to let it be known that lay guests will be welcomed. Extreme care should be exercised, of course, to see to it that the speaker is advised of

the fact that his audience is not wholly professional, so that he may be a bit guarded in his comment. Such an experiment was tried recently in one county society, the local press was given a formal statement concerning the meeting and an intimation was made that lay guests would be permitted to attend. In some twenty-four hours after the item appeared in the paper, several telephone calls were received from laymen who wanted further information about the meeting.

After reading Dr. Hugh A. Cowing's book, "A Meandering Hoosier," Dr. M. A. Austin, of Anderson, has sent the following comment to us: "A generation ago, before Muncie became *alias* Jimmy Middletown, one of the outstanding medical organizations in the Middle West was the Delaware District Medical Society. Three of its members stood out so prominently that mention of Muncie medical affairs meant Kemper, Trent, and Cowing. To me they represented an ideal worthy of emulation, for each possessed something intangible in their God-fearing ministrations that we seem to have lost since preceptors have been replaced by laboratories. Kemper will long be remembered as a medical historian. Trent is remembered for his faithful work in state politics, and Cowing will be remembered as one of our pioneers in preventive medicine. Dr. Cowing's friends will have another reason to foster his memory with pleasure since he recently has distributed to them a book of his prose and poetry. His book reveals, as a writer's work always does, his hopes and fears and the realities of an inner self that often is hidden away otherwise. In this book, Dr. Cowing lets us visit with him some of the out-of-the-way places that we all would like to see. In his poems he has put more of himself than he probably realized when he was writing them."

In the January JOURNAL one of our correspondents, Dr. Frederick E. Jackson, discussed the matter of the time consumed by physicians in listening to detail men who seem to be increasing in number each day. All physicians will agree with Dr. Jackson in his contention that giving his time to all such callers would cut relentlessly into his private work, yet there is another phase to the question. The detail men from some of our more progressive manufacturers of pharmaceutical and biological products are very welcome visitors, for they come with a knowledge of some of the important newer products and are prepared to discuss them intelligently; usually these men are of the understanding sort, and they are perfectly willing to call later or to await the convenience of the physician. We have in mind a few of these men whom we always are pleased to see, and in many instances these interviews have been profitable to us. However, it cannot be gainsaid that in many instances detail men waste much of a doctor's valuable time, and those

men who represent companies that cannot advertise in reputable medical journals, and whose products do not carry an acceptance seal from the Council on Pharmacy and Chemistry of the American Medical Association, do not deserve your time or your consideration. Do not condemn all of them. There are black sheep in all flocks, and you can help to cull them out of this particular group by refusing admittance to representatives of companies recognized as being unworthy of your patronage.

The Board of Trustees of the Tennessee State Medical Association replied in a manner unmistakable to a communication from Dr. John P. Peters, secretary of the "Committee of Physicians." The reply is printed in full in the December issue of the *Journal of the Tennessee State Medical Association*. It refers to the action of the House of Delegates of the A.M.A. in June, 1937, which action thoroughly covered the matter under consideration. It also refers to the name "revolvers" which has been attached to the committee by the lay press. Two citations from the answering letter will serve to show that it was a dynamic document: "We find ourselves, therefore, at a loss to know why an expression from organized medicine in Tennessee was desired by a group of doctors who already have declared themselves as being independent of, and revolvers from, the principles to which organized medicine in America subscribes. . . . It is common knowledge that the income of these institutions from the investment of their endowment funds has diminished considerably. These facts lead us to suspect that these proposals may be motivated by a desire on the part of some of the signers to get Federal aid to the funds from which they draw nice salaries. The profession of medicine is more interested in service to the indigent than in increasing and making secure the salaries of a few full-time men." It would be quite interesting to know of the reaction of members of the "committee" after reading such a scathing answer as this.

Surgeon General Parran has been quoted in the daily papers as complimenting the Indiana State Medical Association for its cooperation in the venereal disease control campaign. A representative editorial appears in the *Indianapolis Star* under date of January 6, 1938, as follows:

"A high tribute was paid to the Indiana State Medical Association by Dr. Thomas Parran, Jr., surgeon-general of the United States, in an address before the Indianapolis Medical Society and the Indianapolis Council of Social Agencies. He asserted that the state medical organization stands foremost in the country in the assistance and cooperation provided in controlling and combating social diseases.

"Dr. Parran cited the toll taken in health and economic waste by syphilis. The most encouraging feature of the national war against the disease is the belated success of bringing it into the open.

The country has suffered from excessive frankness since the World War, but this disease was a notable exception to the rule. The public realizes that general understanding of its nature, of the effects it produces and the means of coping with it offer a great boon to civilization. Progress was difficult so long as discussions were usually taboo and it was mentioned only in whispers.

"The surgeon-general declared that a census of cases under treatment was needed every three years, a register of the disease in every community and hospitalization for some of the victims. The American method of persistent treatment has proved superior to that of other countries, he stated. It should be obvious that prevention of the disease's spread is less costly to the taxpayers than the expense of caring for its victims. While the country has enlisted in the war against this and similar diseases, it is gratifying to learn from the surgeon-general that the medical profession of Hoosierdom heads the list of states in the extent of its cooperation."

The *Indianapolis News* of December 17, 1937, commenting editorially upon the subject of "Marriage Licenses," stresses the points made in an editorial in THE JOURNAL for November, and further comments upon the recent action of the county clerks' association which endorsed a resolution stating: "It is necessary that the health of our people be protected and the spread of disease retarded and the possibilities of Gretna Greens be eliminated." Just what has brought about this change of heart upon the part of the county clerks' association is unknown to us; we recall that on many occasions in the past few sessions of the Indiana legislature, when bills were introduced to eliminate the marriage license "racket," the activities of that association were something to behold. They had a lobbying committee that seemed to know its way about and made short shrift of any and all attempts to safeguard the health of future Hoosiers by changes in the marriage license laws. Since our editorial in November, a Lake County judge has issued an injunction which prohibits the *Lake County* clerk from issuing licenses to couples except when the bride-to-be is a resident of that county. This procedure has markedly slowed up the Crown Point marriage mill, with the result that Illinois couples have had to go a few miles further east, to Porter County, where they apparently are accommodated with the desired licenses. The whole matter now is on appeal to the higher state court, whose action will be noted with much interest by those who believe that this thing of marrying is a rather serious business and should be properly safeguarded by the state. In concluding the editorial, the *News* says: "Whether the clerks support or oppose the drastic changes in Indiana's marriage laws, public opinion is likely to force better laws," and we trust that the surmise in this instance is correct.

President's Page

Between the Napoleonic Wars and the World War, the thinkers of Western Europe and America came to believe that there would be a steady progress toward universal civilization, and upon this foundation the condition of the present world is being judged. Because most of our leaders of the past have believed this thing so firmly, our discouragement today is so deep.

We must revise our hopes, or perhaps our illusions. People little realize the changes that have been at work in the masses of mankind during this period. Less than a generation ago the great masses of Eastern and Northeastern Europe, of Asia and of Africa which comprised the majority of mankind, lay quietly within their age-old customs and traditions, and even among our own so-called progressive nations of the western world, the peasantry and the working classes were satisfied with a bare living.

As the small minorities of thinkers and leaders of Western Europe and the Americas spread modern civilization, and with the development of universal education, new concepts gradually filtered through all of the social strata. Clearly they had not considered the effect of all this on the masses of men. They had obviously thought that the great masses would absorb and accept modern civilization. Quite certainly, it had never occurred to them that these masses would become active, aggressive, contentious people with their own ideas of what might be their place in the sun.

With the advance of universal education, with the new technics of visual education and with the obliteration of time in the form of rapid dissemination of knowledge throughout the world, these masses have been shaken loose from their age-old customs and methods, and now from these people the pressures and tensions are arising. These social pressures are colossal and no government today can survive that does not respond to them.

Walter Lippmann, in a recent discussion of this

subject, says, "From this condition there is no retreat. For when the sleeper awakes, he can not be put to sleep again. Nor in the long view could any one wish that he should sleep again. With that great fact the discouraged pre-war generation must come to terms, finding, if not personal hope in the immediate prospect, then philosophy to understand it. They must come to see that their hopes were founded on an illusion, the illusion that the great masses of men could enter into civilization quietly, without first going through the immense, the catastrophic agitation of their own awakening, that a world-wide civilization could come into being without the labor pains of so great a birth."

Quite clearly our leaders of the past and perhaps of the present have not visualized that before the great masses of men can achieve their destiny, they must pass through possibly generations of the terrifying experience of using their own eyes and finding a proper adjustment as they throw off centuries of custom and experience to evolve a new social pattern.

The signs of coming change are written large in the world. Now society is face to face with a choice of one of a number of possible directions. *Whether or not you actively take part in that decision, you will live and you will die by its results.* The problem is not one of easy solution. Men of easy faiths and loyalties can do no good service; the time calls for thinking men!

What of you, and you, and you, as you go about your daily work? You are charged with a responsibility even greater than that of the job you do, the responsibility of teacher and leader to the end that a proper concept of preventive and curative medicine may be tied into the new social pattern which the signs of the times so clearly forecast.

Arthur M. Parker

Topics-of-the-Month

In the January issue of *THE JOURNAL*, there was outlined a plan for work for the year 1938 and the plan included the idea of selecting an appropriate subject for each month, to be emphasized on the President's Page, to be discussed in *THE JOURNAL*, and to be offered as a topic for discussion at one meeting of each county medical society during the month. It is suggested that each subject be presented in such a manner as to stress its economic and public health or community aspects. The next eleven months will have the subjects as given below, and they are given in advance so that each county medical society secretary can make use of them in preparing programs, and so that each physician can

have an opportunity to prepare himself to discuss the subjects:

February—Syphilis.

March—Pneumonia.

April—Diphtheria.

May—Maternal and Infant Mortality

June—Crippled Children.

July—Highway Accidents.

August—Occupational Diseases.

September—Annual Physical Examination and Attention to Heart Disease.

October—Conservation of Eyesight.

November—Tuberculosis.

December—Smallpox.

Syphilis Control Work

PROPOSED PLAN FOR THE PARTICIPATION OF THE INDIANA ASSOCIATION OF CLINICAL PATHOLOGISTS IN THE CAMPAIGN AGAINST SYPHILIS

The ultimate success or failure of the campaign against syphilis inaugurated by Surgeon-General Parran of the United States Public Health Service will depend upon two primary factors of obvious and essential importance: (1) the mobilization of effective measures for the recognition of the existence of the disease; and (2) the mobilization of effective methods for its treatment and control.

It is thus apparent that to carry the campaign to a successful conclusion will demand the active cooperation not only of physicians in general but of clinical pathologists in particular.

It is obvious that the solution of the problem begins with the diagnosis of the disease and it is unnecessary to dilate upon the difficulties with which this may at times be surrounded. Nor is it necessary to discuss at length the care which must be taken to avoid an erroneous diagnosis of syphilis, on the one hand, or the failure to detect a potential focus of infection on the other. The importance of avoidance of such errors, insofar as it is humanly possible to avoid them, is apparent.

While the clinical study of syphilis is essential and can never be neglected without disaster, laboratory methods, such as the dark-field examination and the various serological procedures, are of equal and, in some measure, of paramount importance. Under many circumstances, serological evidence may be regarded as the most delicate and constant single symptom of the disease.

Because of these facts the laboratory stands in the forefront of the campaign and, by the same token, the clinical pathologist occupies a crucial position and becomes, in fact, the key-man of the situation.

It is readily apparent that present state or municipal laboratory facilities are entirely inadequate to take care of the volume of work incident to the conduct of the campaign, nor can they be readily expanded to the necessary degree without much delay and prohibitive expense. It also is impossible for either the state or federal government to devise or expend an adequate personnel for adequate therapeutics. This difficulty is solved by the employment of the present medical profession on a limited fee basis for the treatment of syphilis. Diagnostic facilities can be secured in the same manner by utilizing to the fullest extent the services of the clinical pathologists of a community.

Recognizing this fact, and appreciating that the clinical pathologists and their laboratories form an already existing, strategically located network throughout the country, the United States Public Health Service has said that, "It is not

deemed feasible or advisable to restrict the performance of blood serologic tests to a central state laboratory," or, by the same token, is it advisable to establish branch laboratories for the purpose.

Surgeon-General Parran is definite in his desire that, in the necessary utilization of laboratory facilities, the fullest possible use be made of the existing private and hospital laboratories, even to the point of stimulating by subsidy the establishment of private laboratories by clinical pathologists where none are now available and, by the withdrawal of state laboratory facilities, if necessary, in order to make the volume of work going to such private laboratories sufficient to secure an adequate return.

Any other procedure must inevitably jeopardize the existence of the clinical pathologist and discourage entrance into this specialized field of the practice of medicine. Should this happen, the deterioration of medicine as a whole will have begun and will inevitably continue. There must be clinical pathologists—physicians who are trained in the study of the causes and mechanisms of disease and trained in the recognition and evaluation of their manifestations and aftermath; there must be clinical pathologists to enable the study, elucidation, and control of disease, to assist the physician in his diagnostic problems and in the newer and highly developed biologic methods of treatment, and to supervise the activities of clinical laboratories, whether under government, state, municipal, hospital, or private auspices.

These are the facts. In order to assist in the solution of these problems and to enable the efficient utilization of the laboratory facilities now existent in this state, the Indiana Association of Clinical Pathologists presents, for consideration and discussion, a working plan for their participation in the syphilis campaign.

This plan embodies and is based upon several premises which may be thus outlined:

1. That, by virtue of the distribution of pathologists and their laboratories throughout the state there now exists sufficient laboratory facilities to render unnecessary expansion of state or municipal laboratories for the specific purposes of the syphilis campaign.

2. That such money as is to be allotted for the utilization of laboratory procedures may be most wisely and economically expended in the utilization of already existing private and hospital laboratories which are now equipped for this work.

3. That a pro-rata allotment of such money on a cost-plus basis allowing a reasonable, though

in Indiana

slight, profit will not only enable a satisfactory and efficient laboratory coverage, so to speak, but will, in so doing, conserve the existence of clinical pathologists as an essential part of the practice of medicine.

It is of primary importance that, as the utilization of laboratory procedures and their intelligent and safe interpretation in the study of syphilis constitutes a phase of the practice of medicine, any arrangement involving the utilization of the services of a pathologist working in an institution must apply solely and directly to the pathologist and not to the institution.

It should be further emphasized and reiterated that serologic procedures (which must be safeguarded by their relegation to the hands of those fully trained in their complexities, fully cognizant of their inherent vagaries, and thoroughly conversant with their clinical interpretation and significance) must not be blindly relied upon as the sole basis of the diagnosis of syphilis, but used rather as a means for selecting those cases in which further studies may profitably be made before the grave and practically irreversible diagnosis of syphilis can justly be made.

With these aims in view, the Indiana Association of Clinical Pathologists presents in this report the following detailed and specific plan for participation in the syphilis campaign:

PLAN FOR PARTICIPATION OF THE CLINICAL PATHOLOGISTS OF INDIANA IN THE DRIVE AGAINST SYPHILIS TO BE INITIATED BY THE PUBLIC HEALTH SERVICE

1. The state to be divided into units or districts comprising one or more local units of government, such as city, county or more than one county, depending upon population and availability of clinical pathologists.

2. Clinical pathologists who may participate in this campaign must be those approved as competent in this field of medical practice by the American Board of Pathology or by the State Department of Health.

Certification constitutes such approval.

3. In the districts where there is no governmental laboratory doing serology, the physicians in that district should be notified by letter by the State Department of Health or Venereal Disease Control Bureau to send bloods and spinal fluids for serologic diagnosis of syphilis to designated clinical pathologists in that district.

4. In communities or districts where governmental agencies doing serology already exist, specimens of blood and spinal fluid collected by physicians in the campaign against syphilis should be handled in one of two ways:

a. The district redivided into smaller divisions and clinical pathologists designated for each division and collectors instructed to deliver all specimens in that district to the designated clinical pathologist after the estimated load of the governmental laboratory has been apportioned to it.

b. All specimens to be delivered to the governmental laboratory, which, in turn, redirects all specimens in excess of its normal load to designated clinical pathologists in the district.

c. Where the clinical pathologist designated does any serologic examinations under this agreement in a hospital laboratory, it must be specifically stated in the agreement that the arrangement is with the pathologist and not with the institution.

5. Dark-field examinations of primary lesions may be handled in a similar manner, providing the facilities already set up by the Venereal Disease Control Bureau should at any time prove inadequate.

6. All of these foregoing items are tentative and may be amended or adjusted to meet conditions found by the State Department of Health or the Venereal Disease Control Bureau.

INDIANA ASSOCIATION OF CLINICAL PATHOLOGISTS

A. S. Giordano, M.D., *President*

C. G. Culbertson, M.D., *Secretary*

SYPHILIS CONTROL COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION REPORT FOR THE YEAR 1937

The United States Public Health Service, through its leader, Dr. Thomas W. Parran, and its entire personnel, have placed fairly and squarely before the public the significance of syphilis. Indiana, through its State Medical Association, was one of the first to realize the importance of attacking this disease. Dr. Edmund D. Clark appointed a committee for the control of syphilis, consisting of three members of the profession.

We have made a diligent effort to outline a sane and progressive program. Early in the

discussion, our committee felt it to be of the greatest importance that any program which might be expected to function should be state-wide in its principles and not a program which would affect any particular city—be it large or small. It was also deemed advisable that the program be conservative and not radical in its functioning.

Of the many points discussed at our meetings throughout the year, some few are still without definite conclusion. Following the Washington Conference in December, 1936, the committee out-

Syphilis Control Work

lined a series of questions. We felt that these were the questions which would elicit the most discussion in the medical groups throughout the state, and that a frank discussion of these points would be the best method of arriving at a definite program. The questions were as follows:

Question 1. The system of notification most suitable to physicians, patients, and health agencies.

At the present time no definite conclusion has been reached concerning this matter. At the time of the first discussion the following quotation gives the attitude of the committee. "It was the consensus of opinion that the system of notification used in the state of Indiana was not successful. Reasons for this were discussed at length. The outstanding reason why doctors do not report cases of syphilis is that they gain nothing by so doing and that they betray the confidential relationship between themselves and the patient. It was suggested that reports be made by number or initials. The state investigator considered this system inefficient in that it created no definite identification of an individual." At the present time the committee is of the opinion that a different system than that of reporting names is advantageous. In the State of Pennsylvania each doctor is given a definite number much as he might be given a narcotic number. Each doctor reports under his number and that he has cases a, b, c, etc. The name is not mentioned. The date of birth, the initials, or other identifying marks may be mentioned. If a patient refuses to come for treatment then the doctor can furnish the name to the state board of health so that they can check on the patient to see why he is not reporting for treatment. This system has many advantages. It does not destroy the relationship between patient and doctor, and it gives the doctor some reason for reporting his cases.

Neither the committee nor the state board of health were willing to voice their approval of the free distribution of drugs by the state board of health to all cases regardless of indigency. There has been some effort upon the part of other agencies to establish this system. Such a system is supposed to recompense the doctor for reporting his cases.

Question 2. The additional laboratory facilities needed for diagnosis of syphilis.

No one doubts the necessity of having an established laboratory in each community to diagnose venereal disease. The committee is firm in its conviction that pathology is a specialty of medicine and that it requires a great deal of training to be in a position to render valuable pathological service. A survey of the laboratory facilities for

the State of Indiana was made. The report of this survey was published in a previous issue of *THE JOURNAL*.¹ Some seventy-two counties in the state do not have pathological laboratories but must obtain laboratory service from adjoining counties or elsewhere. We believe that good laboratory facilities are essential to every section of the state, not only in the control of venereal disease, but in many other types of diagnosis and treatment.

We believe that definite laboratory standards should be established. It is apparent that the pathologists who have devoted their lives to this work should be the guiding body in the establishment of such standards.

Question 3. The policy recommended in the distribution of anti-syphilitic drugs.

The state board of health advocates a minimum treatment of twenty injections of arsenicals and twenty injections of the heavier metals. Inasmuch as many communities do not have clinics to handle their indigent cases it is important that a method of caring for these people be worked out.

Upon the statement of a doctor that his patient is indigent, the State Board of Health will issue the drugs for the forty treatments as enumerated above. The committee realizes that many of these patients were being cared for by members of the medical association throughout the state, not only without remuneration, but with doctors buying the drugs out of their own resources. The system of dispensing free drugs to indigents encourages the patient to remain under the care of his family physician. When his period of indigency is over he still remains under the care of his family physician.

Question 4. The nature and extent of the additional facilities needed to carry out a state-wide venereal disease prevention campaign.

The committee believes there is great necessity for places of isolation for indigents until they are non-infectious. Two types of patients come under this classification. First, the transient or itinerant who has no home. Some place must be provided for the isolation of this individual. Second, the prostitute who as such is a positive source for the spread of the disease. Quarantine upon the premises from which she operates is always ludicrous. Two things may happen: she may disappear from sight or she may continue to ply her trade. Facilities for her detention, possibly through means of a detention room, should be provided.

¹ Report of Committee on Syphilis Control before the meeting of the House of Delegates at French Lick. *Jour. Ind. St. M. A.* Vol. 30, page 602 (Nov.) 1937.

in Indiana

Question 5. The physician's part in the application of epidemiological methods for the control of syphilis.

Certainly the physician has a very important position in the control of syphilis from an epidemiological view point. The physician should elicit the names of the contacts from the patient. On the other hand, the committee does not feel that the physician is the person who should investigate these contacts. This should be the work of trained social investigators who are assigned to regions which they can handle. Some investigators might handle four or five counties. The committee feels that investigation of this type should be attached to the state board of health and function from that organization.

Question 6. The possibility of developing minimum standards of treatment for early syphilis.

It is the opinion of the United States Public Health Service that a case of syphilis is a public health problem only as long as it is an infectious problem. It is very difficult to establish the time that a person becomes non-infectious. However, an optional standard has been established as follows:

If an individual has had twenty injections of the arsenicals and twenty injections of the heavier metals he is no longer considered a public health problem. The committee feels that any individual who knows that he has syphilis and has had forty treatments extending over a period of time has given the doctor in charge sufficient opportunity to apprise this individual of the seriousness of the disease and of the absolute need of continuing treatment until cure is obtained.

Question 7. The availability of hospital beds for treatment of cases needing hospitalization.

The committee feels that hospitalization is inadequate in Indiana. Hospital beds should be available for incorrigible cases and, further, quarantine laws should be utilized.

Question 8. Methods for the more adequate prevention of congenital syphilis through recognizing and treating the disease among pregnant women.

The committee feels that educational procedure to encourage the general public to realize that a pregnant mother should have blood tests early in her period of gestation is important. We believe it is the doctor's duty to take a blood test early in every pre-natal case. When one realizes that there are sixty-five or seventy thousand congenital cases of syphilis occurring each year in the United States and practically every one of these cases could be prevented if the mother were under treatment, the significance of the doctor's obligation to his patient is apparent.

Question 9. The lines along which informative and educational programs should be conducted.

Constructive educational procedure of any kind is desirable. The feeling of the committee is that the elimination of syphilis from this country is largely an educational affair—educational from the viewpoint of the profession as well as the general public.

Question 10. The possibilities of prophylactic measures being taught and administered through physicians' offices, out-patient hospital services and clinics, with the thoroughness and precautions governing Army and Navy procedures.

The question of prophylaxis was not the subject of much discussion during the year.

SALIENT FEATURES OF 1937 PROGRAM

A survey was made of the laboratory facilities in the state. Definite opportunities for improvement in this field exist. Just how these conditions could be improved has been mentioned earlier.

In order to show the general profession what the attitude of the laboratories is at the present time concerning the control of syphilis it might be well to mention that the survey of laboratory facilities conducted by this committee brought out the information that many blood tests were being sent to the state board of health regardless of the patient's ability to pay; many of these blood tests came from areas in which no laboratories existed; and that the ordinary price charged in a doctor's office ranged from one to ten dollars with the average price being five dollars.

The recognized laboratories in the state, in order to show their desire to cooperate with the national and state movements to do away with syphilis, have been willing to reduce their price for blood examinations to one dollar. This gesture upon the part of laboratory men throughout the state is one that elicits the approval of the Indiana State Medical Association. Their action is probably the most outstanding constructive step accomplished during the year. It is the hope of the committee that these men, who have been so splendid in their cooperation, should be recognized by the establishment of standard laboratories in the state. If such standards are established, the state board of health, either by definite rule or legislative enactment, would examine and license each laboratory in the state.

Another point which deserves consideration is that of examinations before marriage. A number of states have already passed laws requiring people to be free from venereal disease before a marriage is entered into. No doubt state legislation of this type has already been sensed by the state legislative body. It is to be hoped that the Indiana

Syphilis Control in Indiana

Medical Association may lend its aid to the legislative body in the creation of such laws as will be necessary to handle the problems surrounding the control of venereal disease and marriage.

No doubt many points of constructive procedure will be brought before our committee during 1938. However, probably no more important step could be taken than the procedure suggested by Dr. Parran during his recent visit to Indianapolis. Dr. Parran recommended that a state-wide survey of the number of cases of syphilis in Indiana be made. The importance of such a survey can be understood when one remembers that a great educational program is now being carried on. Many cases of syphilis among indigents will be discovered.

The ever important fact of supplying sufficient money to cover any and all points which may come up for consideration in a program to eliminate syphilis will be infinitely easier to handle when the Indiana State Medical Association and the State Board of Health know how many cases of syphilis in Indiana there are to handle. We

hope in the near future, either through our own efforts or through the agency of the state board of health, to contact each physician in the state and ask him how many old cases of syphilis he is treating and how many new cases he had during 1937.

An intelligent attack upon such a problem as the control of syphilis requires much study before any action is taken. The committee has tried to be conservative in its efforts. Some points are still controversial. However, one year of functioning as a committee has seen many hard and difficult problems solved in a way which the committee believes will improve the condition of public health in our state and which has been constructive to the general medical profession.

COMMITTEE ON SYPHILIS CONTROL,

F. R. N. Carter, M.D., *Chairman*,
Minor W. Miller, M.D.,
Ernest O. Nay, M.D.,
Herman Morgan, M.D.,
B. W. Rhamy, M.D.

SUGGESTIONS OF COMMITTEE ON MENTAL HEALTH IN REGARD TO NEUROSYPHILIS

Pursuant to the request of the editor of THE JOURNAL of the Indiana State Medical Association, the Committee on Mental Health offers the following suggestions to aid the general practitioner in the early recognition and the prevention of neurosyphilis:

1. It is wise to consider every case of syphilis as a potential case of neurosyphilis in order that the cases of neurosyphilis may be detected and receive early treatment. To this end, every case of syphilis should receive a spinal fluid examination within the first six months, and thereafter at yearly intervals. On the appearance of syphilitic changes in the spinal fluid, active treatment of neurosyphilis should be instituted. Routine treatment of early syphilis is not adequate in all cases of neurosyphilis.

The incidence of neurosyphilis is not definitely determined, various investigators estimating the percentage from 6 to 20 per cent. Whether or not this incidence of neurosyphilis is the result of inadequate early treatment or other factors is not known.

The treatment of early neurosyphilis is successful in about 30 to 50 per cent, the later the case the less effective the treatment. It is, there-

fore, important to recognize neurosyphilis in its early stages.

2. Many cases of neurosyphilis are discovered on routine examinations or when individuals have consulted their physicians for other complaints. The examining physician should always be on the alert for any of the early signs of neurosyphilis as many cases of neurosyphilis are found in which there is no history of primary infection or secondary manifestations. With the appearance of clinical signs suggestive of neurosyphilis, complete serological studies of blood and spinal fluid should be made.

It is the desire of this committee at a later date to submit a more comprehensive and exhaustive report on this very important subject.

COMMITTEE ON MENTAL HEALTH,

Larue D. Carter, M.D., *Chairman*,
A. M. DeArmond, M.D.,
Max Bahr, M.D.,
John H. Hare, M.D.,
L. P. Harshman, M.D.,
C. L. Williams, M.D.,
E. Rogers Smith, M.D.

Annual Secretaries' Conference and Northwest Conference

SECRETARIES' CONFERENCE

INDIANA STATE MEDICAL ASSOCIATION

to be held at

**American Medical Association Headquarters
535 North Dearborn Street, Chicago**

SATURDAY, FEBRUARY 12, 1938

Program

- 10:00 a. m. Registration
- 10:30 a. m. Inspection tour of American Medical Association Building
- 12:00 m. Luncheon at American Medical Association headquarters
- 1:15 p. m. Call to order and opening remarks by A. M. Mitchell, M.D., Terre Haute, chairman
- 1:25 p. m. Welcome to secretaries by Herman M. Baker, M.D., Evansville, president, Indiana State Medical Association
- 1:35 p. m. Remarks by E. M. VanBuskirk, M.D., Fort Wayne, president-elect, Indiana State Medical Association
- 1:45 p. m. **Indiana's Mental Hygiene Program for Children.** H. B. Mettel, M.D., Indianapolis, director, Bureau of Maternal and Child Health, Indiana State Board of Health
Discussion: J. B. Maple, M.D., Sullivan
L. P. Harshman, M.D., Ft. Wayne
- 2:15 p. m. **County Medical Society Journals and Unethical Advertising.** P. E. Yunker, M.D., Evansville
Discussion: E. M. Shanklin, M.D., Hammond
- 2:45 p. m. **County Health Education Exhibit.** A. M. Mitchell, M.D.
Discussion: Herman M. Baker, M.D.
- 3:15 p. m. **Relationship of the County Medical Society to the Community.** B. M. Taylor, M.D., Portland
Discussion: E. M. VanBuskirk, M.D.
- 3:45 p. m. **Round table discussion of local medical society problems by county society secretaries.**
- 4:45 p. m. **Legislative Doings.** By Norman Beatty, M.D., chairman, Legislative Committee, Indiana State Medical Association.
- 4:55 p. m. **Indiana's Public Health Program.** Verne K. Harvey, M.D., director, Indiana State Board of Health
- 5:05 p. m. Election of chairman for 1938
Adjournment for day

NORTHWEST REGIONAL CONFERENCE

Palmer House, Chicago

SUNDAY, FEBRUARY 13, 1938

GENERAL SUBJECT OF CONFERENCE:
"MEDICAL CARE FOR ALL THE
PEOPLE"

PROGRAM

- 8:30 a. m. Breakfast (Club Dining Room)
- 9:30 a. m. Registration
- 10:00 a. m. Morning Session (Room Number 14)
 1. **Preventive Medical Care, as an Activity of County Medical Societies**
Herman M. Baker, M.D., Evansville, Indiana, President, Indiana State Medical Association
Discussion led by Frank Gastineau, M.D., Indianapolis; A. M. Mitchell, M.D., Terre Haute
 2. **Rural Medical Care in Wisconsin**
Raymond G. Arveson, M.D., Frederic, Wisconsin, State Medical Society of Wisconsin
 3. **Physical Rehabilitation of the Indigent**
Mr. Joe Savage, Charleston, West Virginia, Executive Secretary, West Virginia State Medical Association
 4. **Group Hospitalization in St. Louis**
Carl F. Vohs, M.D., St. Louis, Missouri, Missouri State Medical Association, Secretary, Northwest Regional Conference
 5. **Oakland County Medical Plan**
R. G. Tuck, M.D., Pontiac, Michigan, Michigan State Medical Society
- 1:00 p. m. **Luncheon (Club Dining Room)**
Indiana State Medical Association will be Host to the Conference
Report of the Year
R. L. Sensenich, M.D., South Bend, Indiana, Indiana State Medical Association, President, Northwest Regional Conference
Election of Officers for 1939
Selection of Meeting Place—and time of Meeting
Introduction of Guests
- 2:00 p. m. Afternoon Session
Discussion of the Project "Medical Care for All the People"
The American Medical Association
R. G. Leland, M.D., Chicago, Illinois, Director, Bureau of Medical Economics, American Medical Association
The State Medical Association
Ernest E. Shaw, M.D., Indianola, Iowa, Iowa State Medical Society
The County Medical Society (Sedgwick County)
Mr. Jack Austin, Wichita, Kansas, Executive Secretary, Sedgwick County Medical Society. Kansas Medical Society

REPORT ON CONFERENCE FOR BETTER MOTHERS AND BABIES

WASHINGTON, D. C., JANUARY 17-18, 1938

REPORT MADE BY STATE BOARD OF HEALTH MEMBERS IN ATTENDANCE TO THE
EXECUTIVE COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION

An amendment to the Federal Social Security Act in order to obtain more funds for states to carry on an improved program for maternal and child health services was recommended by the "Conference on Better Care for Mothers and Babies" held at Washington, January 17 and 18. The conference was attended by 700 delegates from eighty-five professional, welfare, economic, farm, women's clubs and business groups.

The conference was divided under three discussion headings, namely, (1) professional resources, (2) community resources, and (3) resources of citizens for better care of mothers and babies.

The conference was attended by Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, and Dr. Howard B. Mettel, director of Maternal and Child Health of the Indiana State Board of Health.

As a result of these discussion sessions, a series of four committee reports was drawn up and approved by the conference. These findings, containing a suggested plan of action, were presented to President Roosevelt. Principal points in this major report which summarized and coordinated the reports drawn up under the three main conference headings are:

1. Annually, in 2,000,000 families in the United States, the birth of a child is the most important event of the year. In more than 150,000 of these families, the death of the mother or baby brings tragedy. Annually 14,000 American mothers die from causes connected with child birth, 75,000 infants are still born and 69,000 infants die during the first month of life. There has been little reduction in maternal mortality rates in this country during the twenty-two years for which records are available. Although great scientific advancement has been made by the medical profession for the care of the pregnant mother, such as the care of the toxemias of pregnancy, no comparable reduction in the death rate from infection or hemorrhage in the country at large has been made. Committees of physicians report that one-half to two-thirds of the maternal deaths are preventable and that the still birth rate has remained unchanged. Due to advances in sanitation and in medical knowledge, the death rate for infants in the first year of life has declined steadily in the past 22 years.

2. Opportunities for saving life. It has been demonstrated repeatedly that the application of medical knowledge and professional skill can save the lives of mothers and babies and that such knowledge can be made available by proper public and private action. Preconceptional and premarital care will help safeguard the mother from possible later disaster. Good prenatal care will reduce the deaths of mothers from toxemia and mean fewer deaths of infants. Adequate prenatal treatment for syphilis will improve the mother's condition and prevent syphilis in the child.

Prenatal care prepares the physician to deal intelligently with conditions at birth. Good medical and nursing care, good technic at time of delivery, hospitalization of abnormal or complicated cases, proper feeding and skilled care at birth will increase the child's chance to live. Adequate care of the new baby after delivery will protect him from disability and even death.

3. Economic Status of Parents. Estimates are that of the 2,000,000 births occurring annually in this country 840,000 or one-third occur in families on relief or

having total incomes of less than \$750 per year. Nearly six times as many births occur in rural areas and in cities under 50,000 population than in large cities where more adequate medical care is said to be available for the low income group. Highest birth rates generally prevail in areas where the economic conditions are the least favorable.

4. Availability of Medical and Nursing Care. In some areas there are too few general practitioners to meet the need and in many more areas there are too few specialists in obstetrics and pediatrics. The number of nurses in rural areas still is far below that required if reasonably good maternal care is to be given. Opportunities for postgraduate instruction for care of mother and child are still insufficient. Records show that women are not taking advantage of prenatal care as offered by private physicians and as available in prenatal clinics. There has been no effort on a national scale to make medical and nursing care at the time of delivery generally available for mothers in families which cannot obtain such care unaided. A quarter of a million women were delivered in the U.S. last year without advantage of a physician's care.

While figures quoted in this article are not very encouraging, Dr. V. K. Harvey, director of the Indiana State Board of Health, says that Indiana has had the advantage of a maternal and child health program under which the rates for maternal and infant mortality reflect gratifying improvement.

Maternal Mortality Rate in 1936 was 4.5 per 1,000; in 1937 was 3.4 per 1,000—a 25% improvement.

Infant Mortality Rate in 1936 was 50.7 per 1,000; in 1937 was 49.5 per 1,000.

5. Recent Advances. In the past thirty years, great advances have been made in medical research for the care of mothers and infants. In the past two years there has been an increasing opportunity for improving maternal and child health services through federal grants to states under the Social Security Act. These funds, however, have not been sufficient to provide medical and nursing care at delivery except to a limited extent or on an experimental basis.

PLAN OF ACTION

Preservation of the lives and health of mothers and babies warrants immediate and concerted national consideration and national action. Specific recommendations for action are:

Full opportunity for practical instruction in obstetrics and the care of the newborn infant:

For undergraduate students in medical schools, for physicians resident in hospitals, and periodically for practicing physicians in post graduate courses.

For the student nurse and at recurrent intervals for the graduate nurse or the public-health nurse whose work includes maternity nursing in private practice or in public-health service.

Supervision of the mother throughout pregnancy by a qualified local physician aided by a public-health nurse, preferably one with recent training in obstetrics and care of newborn infants.

Care at delivery by the same qualified local physician, aided by a nurse trained and experienced in delivery nursing care, such care to be given in the home or in an approved hospital provided with adequate obstetric and pediatric services and facilities for caring for emergency or complicated cases.

Postpartum and postnatal medical and nursing supervision in the hospital and the home.

Consultation service by obstetricians and pediatricians to aid general practitioners in their care of mothers and infants.

Community provision for care by a qualified physician and nurse, for consultation service, and for hospital care when indicated, including transportation to hospital, for the mother or baby to whom such care is otherwise inaccessible or who cannot obtain care unaided.

Further progress toward these objectives can be made through concerted effort of all concerned with maternal and infant care as follows:

To increase professional resources there must be:

Better *undergraduate* education and training for nurses and practitioners of medicine;

Better *graduate*, educational facilities for nurses and physicians;

Adequate provision for training of nurses and physicians for special obstetric and pediatric service;

Better distribution of competent physicians;
More specially trained graduate public-health nurses;

Hospitals caring for maternity cases should make their facilities available for better education of physicians and nurses.

The committee finds that if this plan of action is to be carried out, federal participation would be necessary as follows:

Amendment to Title V, Section 502, of the Social Security Act to authorize a larger sum to be appropriated annually to the states for maternal and child-health services, with provision that the increased payments to the states should be used for the improvement of maternal care and care of newborn infants.

The authorization should provide for gradual development of the program, in both its educational and its administrative aspects, and for necessary increases in appropriation until a sum is reached that will insure care for all women who are unable to obtain care otherwise, either because of economic reasons or because of inaccessibility of care in the communities in which they live.

The extent to which this plan can be made a reality depends upon the desire of the public to be adequately served, the leadership of the professional groups in the provision of service of high quality, and the development by public agencies, in cooperation with private agencies and individuals, of a program of education and medical and nursing care which will meet the needs of the various groups in the population.

READ PRESIDENT

BAKER'S MESSAGE

ON PAGE 83 AND

NOTE THE TOPICS

ASSIGNED FOR THE

MONTHS OF 1938.

NATIONAL SOCIAL HYGIENE DAY— FEBRUARY 2

Marion Simonson, R.N.

Field Worker, American Social Hygiene Association

As a field worker representing the American Social Hygiene Association and its Anti-Syphilis Committee, of which General John J. Pershing is chairman, I am grateful for the courtesy of this space to tell of my present activities in Indiana.

That the present interest and activity toward the eradication of syphilis and gonorrhea now evidenced by many Indiana groups shall not wane, but shall be continued, directed, and supported, a central state committee is being formed, and will be made up of representatives of organized medicine, public health and welfare, women's clubs, parent-teacher groups, the clergy, educational, civic and business groups. Under the guidance of the Syphilis Control Committee of the Indiana State Medical Association and the State Department of Health, I am privileged to assist with this important community organization work.

The American Social Hygiene Association heretofore has had no fund-raising device such as other national health organizations possess. During February, conjointly with Social Hygiene Day, a necessary fund-raising campaign for educational purposes will be started. However, it should be remembered that a large part of the funds raised will be returned to the areas where they are raised to assist the educational programs of local groups. The Association *does not* treat. Education is its implement.

All signs point to another successful Social Hygiene Day—February 2. Last year there were some 500 meetings held in various parts of the country; this year it is probable that there will be a thousand such meetings. These meetings have proved to be a spectacular means of turning a complacent public into an inquisitive, active group.

Social Hygiene Day—February 2—is just one day. All year the American Social Hygiene Association educates, through medical consultants, field workers, investigators, speakers, films, pamphlets, posters, mechanical lectures, and thousands of letters. In just one year the demands for these various services have increased all the way from 25% to 1068% in one instance. If you desire help or suggestions in planning a Social Hygiene Day meeting, write to the American Social Hygiene Association, 50 West 50th Street, New York City.

The fine team work which the Syphilis Control Committee of the Indiana State Medical Association is exhibiting deserves mention here. In my travels, I have found attitudes of scientific inquiry and purposeful zeal and determination in getting community syphilis control programs under way on a sound basis in many states, but in some states this is not true.

The personnel of the central committee and its objectives will be announced later.

Under the Capitol Dome

A reduction in the number of deaths due to most types of communicable diseases was recorded for last year as compared with 1936, according to a report prepared by Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

This was particularly significant because of the fact that 1937 was a disaster year, because of the winter flood when an increase of some diseases would normally have been expected, Dr. Harvey pointed out.

Another unusual feature of the report was a reduction in accidental deaths, the total dropping from 3,653 in 1936 to 3,175 in 1937 despite an increase in automobile fatalities. The 1936 auto fatality total was 1,349 and the 1937 was 1,435. Part of the decrease was accounted for in heat deaths, the 1936 total being 433 and the 1937 total only 25.

Dr. Harvey was at a loss to explain the heavy increase in suicidal deaths, the number jumping from 480 for 1936 to 590 for 1937.

The Indiana death rate per 1,000 of population was 11.7 for 1937, a reduction from the 12.2 rate of 1936, while the birth rate (also on basis of 1,000 population) increased from 15.5 in 1936 to 16.0 in 1937.

Dr. Harvey said that the increase in deaths from syphilis probably was only an apparent increase, due to closer reporting as the result of publicity on this disease.

The complete report follows:

	1936	1937
Total deaths	42,308	40,664
Death rate per 1,000	12.2	11.7
Important causes:		
Tuberculosis	1,694	1,646
Smallpox	0	3
Typhoid fever	61	41
Diphtheria	101	58
Scarlet fever	117	106
Measles	5	15
Whooping cough	58	160
Pneumonia	3,499	3,304
Diarrhoea under 2 yrs.	324	313
Influenza	1,023	1,174
Suicidal	480	590
Accidental	3,653	3,175
Homicidal	176	155
Goiter	141	160
Cancer	3,894	3,860
Puerperal Causes	247	191
Syphilis	225	240
Birth Rate	15.5	16.0
Total births	53,800	55,527
Deaths under 1 year	2,730	2,750
Infant Mortality rate	50.7	49.5
Maternity rate	4.5	3.4

} Per 1,000
} Births

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, and Dr. Howard B. Mettel, director of maternal and child health in the Division of Public Health, attended a conference on better care for mothers and babies held in Washington, January 17 and 18. The conference was conducted by the Children's Bureau of the U.S. Department of Labor. Speakers on the program included Katharine F. Lenroot, chief of the Children's Bureau, and Dr. Thomas Parran, Jr., surgeon-general of the U.S. Public Health Service.

Dr. L. C. Sammons, of Shelbyville, was re-elected president of the Indiana State Board of Medical Registration and Examination at the annual meeting in the board offices in the Statehouse January 11.

Dr. J. T. Oliphant, of Farmersburg, was elected vice-president, Dr. J. W. Bowers, of Fort Wayne, was re-elected secretary, and Dr. W. C. Moore, of Muncie, was re-elected treasurer.

Dr. Clarence B. Blakeslee, osteopathic physician of Indianapolis, has been appointed to succeed Dr. E. O. Peterson, of LaPorte, who resigned as a member of the Indiana State Board of Medical Registration and Examination.

COMMITTEE TO STUDY MARRIAGE LAWS

Governor M. Clifford Townsend has appointed a special committee to study Indiana marriage laws, with a view to necessary revisions. The members are to hold a meeting February 2 in the Indianapolis Athletic Club to get the program started. Marriage laws of other states will be studied and compared with those of this state. The committee has no particular recommendations, but probably will consider physical examinations and other requirements to eliminate evils in this state.

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, will be temporary chairman, and Dr. Charles Kettleborough, director of the state legislative reference bureau, will be permanent secretary.

Members of the committee named by the Governor are:

Dr. Herman Baker, president, Indiana State Medical Association, Evansville.

Dr. Harold J. Norton, Columbus.

Dr. T. B. Rice, Indiana University school of medicine, Indianapolis.

Dr. E. M. Shanklin, editor, Journal Indiana State Medical Association, Hammond.

Dr. F. R. Nicholas Carter, chairman of syphilis committee, Indiana Medical Association, South Bend.

Dr. A. F. Weyerbacher, Indianapolis.

Dr. L. P. Harshman, Ft. Wayne School for Feeble Minded, Ft. Wayne.

Miss Marie Winkler, R. N., president, State Nurses Association, Indianapolis.

Thurman Gottschalk, Director, State Welfare Dept., Indianapolis.

Mr. Fred Schick, Junior Chamber of Commerce, Indianapolis.

Judge John W. Spencer, Jr., Evansville.

Louden L. Bomberger, president, Indiana State Bar Association, Hammond.

James Robinson, professor of Law, Indiana University law school, Bloomington.

Professor Edwin Sutherland, sociology department, Indiana University, Bloomington.

Charles M. Dawson, secretary, County and Township Officials Association, Indianapolis.

Lloyd Messersmith, president, Physical Education Association, Greencastle.

Cornelius O'Briend, Lawrenceburg.

Denver Harlan, Richmond.

Mayor Joseph E. Kimmel, Vincennes.

Judge T. Joseph Sullivan, Crown Point.

Wendell Tennis, president, County Clerks Association, Sullivan.

Charles R. Ettinger, secretary, County Clerks Association, Indianapolis.

Allen Bloom, Jewish Community Center Association, Indianapolis.

Clarence Manion, South Bend.

Joseph Cravens, Madison.

Mrs. J. W. Moore, Women's Legislative Council chairman, Indianapolis.

Mrs. Lillie D. Scott, Indiana Farm Bureau social and educational department chairman, Clayton.

Mrs. Raymond L. McNeal, fourth district Indiana Farm Bureau leader, Russiaville.

Mrs. S. N. Campbell, president, Indiana League of Women Voters, Indianapolis.

Mrs. Paul Ford, Indiana League of Women Voters, Kokomo.

Mrs. James L. Murray, chairman of legislation, Congress of Parents and Teachers, Indianapolis.

Mrs. Carl J. Manthei, Indianapolis PTA legislative chairman, Indianapolis.

Mrs. J. P. Sartell, American Legion Auxiliary, Indianapolis.

Mrs. John A. Cejnar, American Legion Auxiliary, Indianapolis.

Emma C. Puschner, American Legion Child Welfare director, Indianapolis.

Marguerite G. Seibert, Legion Welfare assistant director, Indianapolis.

Mrs. John W. Thornburg, state legislative chairman, Indiana Federation of Clubs, Indianapolis.

Mrs. John W. Moore, Indiana Federation of Clubs.

Mrs. Bert C. Ellis, Council of Federated Church Women.

Mrs. Walter P. Morton, chairman, state legislative committee, American Association of University Women, Indianapolis.

Mrs. Calvin R. Hamilton, American Association of University Women.

Mrs. W. A. Eschbach, state legislative chairman, May Wright Sewall Indiana Council of Women, Inc., Indianapolis.

Mrs. E. May Hahn, May Wright Sewall Council, Indianapolis.

Mrs. Tristram Coffin, state chairman, Y.W.C.A. public affairs committee, Indianapolis.

Mrs. R. E. Adkins, Y.W.C.A.

Mrs. F. L. Evans, Y.W.C.A.
 John Will Burden, Marion.
 Rev. Marshall Talley, Indianapolis.
 Representative William Black, Anderson.
 Dr. George Denny, superintendent, Muscatatuck
 Colony, Butlerville.

Senator Thomas Hendricks, secretary, State Medical Association, Indianapolis.

Senator Larry Brandon, secretary, Indiana Farm Bureau.

Rabbi Albert M. Shulman, Beth-El Temple, South Bend.

Rev. Guy O. Carpenter, Central Ave. M. E. Church, Indianapolis.

Rev. Dr. Henry Dugan, Chancellor of the Diocese, Indianapolis.

Judge John W. Baununk, Brazil.

Voice of the Doctor

To the Editor:

I have considered the question of etiology and prevention of the "common cold."

I am of the opinion that the cause is *autonomic nervous shock with secondary invasion of bacteria*, and for the following reasons:

The temperature changes, chilly sensations, headaches, decreased digestion in nose and gastrointestinal tract, disturbed metabolism resulting in acidosis, and dryness of the mucous membranes are all explainable on a nervous basis. General debility and sluggish elimination are only manifestations of the syndrome, the latter one is also a link in a vicious circle acting as does the communicable diseases by an intoxication of nerves. Irritating gases, dust, and vitiated air act reflexly as well as by direct damage to the mucous membrane. Exposure to sudden changes of temperature and humidity, worry, overwork, and excesses of all kinds contribute to the autonomic nervous shock.

Suggested by the above statements, prophylaxis is as follows:

Regularity and moderation in food, work, recreation, and sleep. Avoid exposure, needless worry, irritating gases and dust, excessive smoking and drinking, and sexual indiscretions as much as possible. Vaccines may lower the relative virulence of invading organisms in those individuals prone to autonomic nerve shock. (Filterable viruses may be found which cause this shock.) Observe that all successful treatment or prevention of the first stage, the dry stage, of the common cold is directed toward combating this shock and its effect on the mucosa, e.g., vapor inhalations, hot baths, acetyl salicylic acid, calcium iodide, etc.—anything that will excite the mucosa to secrete earlier and in greater quantity. "Thrust doses" of concentrated vitamins A and D are beneficial indirectly.

JOHN B. BERKEBILE, M.D., *Percu*

Deaths

GEORGE A. COBLE, M.D., of New Augusta, died December thirty-first. Dr. Coble was seventy-six years old. He had practiced medicine at New Augusta for fifty-four years. He graduated from the Medical College of Indiana, Indianapolis, in 1882. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association.

WILLIAM H. TERRELL, M.D., of Pittsboro, died January twelfth, aged seventy-five years. Dr. Terrell had practiced at Pittsboro for the past thirty years, and had practiced at Stilesville previously. He graduated from the Medical College of Indiana, Indianapolis, in 1889, and was a member of the Hendricks County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He had served as county coroner and as county health officer for Hendricks County and had held various offices in the Hendricks County Medical Society.

SILAS T. RICHMAN, M.D., retired physician of Indianapolis and Columbus, Indiana, died in Columbus, January third. Dr. Richman was eighty-five years old. He graduated from Asbury College in 1877, from the Medical College of Indiana, Indianapolis, in 1883, and from Northwestern University Medical School, Chicago, in 1899, after which he practiced medicine in Columbus, Princeton, Kansas, and Chicago until his retirement in 1927, after which he had lived in Indianapolis and Columbus.

OMER E. DALE, M.D., of Everton, Indiana, died December twenty-fourth as a result of injuries received in an automobile accident. He was sixty-one years old. Dr. Dale had practiced in Fayette County since 1900, practicing first at Alquina and later at Everton. He graduated from the Barnes Medical College, St. Louis, in 1900, and was a member of the Fayette County Medical Society, the Indiana State Medical Association and the American Medical Association.

EMERSON CARTER, M.D., of Bringhurst, was killed instantly when struck by a train in Flora, Indiana, December twenty-ninth. Dr. Carter was fifty-three years of age. He graduated from the Physio-Medical College of Indiana, Indianapolis, in 1909 and was a member of the Carroll County Medical Society, the Indiana State Medical Association and the American Medical Association.

News Notes

Dr. Thomas O. Dorrance has moved to Bluffton where he is associated with the Caylor-Nickel Clinic. Dr. Dorrance specializes in pediatrics.

Newspapers report that a patent has been granted to Dr. Samuel J. Ferrara of Peru and a machinist of Peru, Mr. William Deen, for a new type of blood transfusion apparatus.

Dr. Charles H. Maly, resident surgeon at the Indianapolis City Hospital, and Miss Thelma Lorraine Dreibelbis of Oklahoma City were married in Indianapolis, December twenty-sixth.

Dr. A. C. Holley of Attica has installed new x-ray equipment in his office consisting of a 200,000 volt machine for deep therapy.

Emmett B. Lamb, M.D., has announced the removal of his offices from 908 Hume Mansur Building to 205 Hume Mansur Building in Indianapolis.

Dr. Paul Gray of Huntington and Miss Kathlein Guthrie of Evansville were married December thirty-first in Evansville.

Dr. Max Ganz of Marion and Miss Anne Bolotin of Indianapolis were married January second, in Indianapolis.

Dr. Roger W. Blackford of Beech Grove and Miss Lois Woody of Lebanon were married December thirty-first in Lebanon.

Dr. Charles M. Gibbs and Miss Selma Stephens of Greenfield were married December eleventh in Greenfield.

Dr. John Eric Dalton of Indianapolis has been elected to membership in the Cincinnati Dermatological Society.

At a meeting of the McLean County Medical Society in Bloomington, Illinois, January eleventh, Dr. E. N. Kime, of Indianapolis, discussed "Management of Radioresistant Tumors of the Head and Neck."

Dr. Lloyd H. Ziegler, professor of neurology and psychiatry in the Albany Medical College, Albany, N. Y., has been appointed associate medical director of the Milwaukee Sanitarium, Wauwatosa, Wisconsin.

A. M. A. EXHIBIT AT AMERICAN ASSOCIATION FOR ADVANCEMENT OF SCIENCE



Exhibit on "Mechanical Nostrums" shown by the American Medical Association at the meeting of the American Association for the Advancement of Science in Indianapolis, December 27-30, 1937.

The exhibit included some dozen mechanical devices of a fantastic or vicious nature that have been foisted upon an unsuspecting public. Among them was the old "magic horse collar" which is still being sold from door to door; "gas pipe" cures for numerous ailments; necklaces for the treatment of goiter; hearing devices that were entirely worthless and various alleged radium cures. In addition, there were descriptions of many other devices that have appeared on the market in times past, such as the now humorous "tape worm trap" and the like.

Dr. W. S. Resoner of Swayzee has gone to Florida for a two months' vacation. This is the first time during his fifty years of practice that Dr. Resoner has closed his office for so long a period.

The next meeting of the Association of Military Surgeons will be held at the Mayo Clinic in Rochester, Minnesota, October 13, 14, and 15. The meeting of the Association will be held in conjunction with the Medico-Military Inactive Duty Training Unit, which is under the auspices of the Mayo Foundation.

Dr. R. S. Sappenfield, of Brookville, has accepted a position as resident anesthetist at Bellevue Hospital in New York City and he and his family will move to New York in February. Dr. Sappenfield's practice will be cared for by Dr. Walter A. Foreman, who has been a staff member of the Rockville State Sanitarium.

Dr. G. D. Scott of Sullivan and his son, Dr. Irvin H. Scott have formed a partnership for the practice of medicine in Sullivan. They have purchased a building which is being remodeled for their purpose. Dr. J. B. Maple who has been associated with Dr. G. D. Scott during the past twenty years will continue to be associated with the Drs. Scott.

Dr. F. C. Smith, for four years chief medical officer of the Veterans' Hospital in Indianapolis, has been transferred to Los Angeles, California, where he has taken charge of the neuro-psychiatric division of the new Veterans' Hospital there.

Dr. K. K. Chen, director of the pharmacological laboratories of Eli Lilly and Company, has become one of the sponsors of the American Bureau for Medical Aid to China which was organized to raise funds for purchasing medical supplies for use in treating civilian victims of the Sino-Japanese war.

At the meeting of the American Association for the Advancement of Science in Indianapolis, December 27 to January 1, a resolution was adopted, asking the British Association for the Advancement of Science and all other scientific organizations throughout the world to cooperate in advancing the interests of science and in promoting peace among nations and intellectual freedom in order that science may continue to advance and spread its benefits to mankind.

Resident staff members and interns who will serve at the Indianapolis Methodist Hospital for a year beginning July first have been announced by Dr. John G. Benson, hospital superintendent. Dr. Howard S. Williams will become chief resident physician, succeeding Dr. Kenneth Thornburg who has held the position four years.

Recognition and appreciation of the years of service of Arthur V. Brown as president of the board of trustees of the Indianapolis Methodist Hospital was expressed at a testimonial dinner for Mr. Brown, January twenty-sixth, in the Riley room of the Claypool Hotel. Many guests from out of the city attended, and Dr. J. H. J. Upham of Columbus, Ohio, was a guest speaker.

Newspapers have carried the announcement that Carroll County Medical Society members have adopted a schedule of fees for maternity cases as follows: normal confinements, \$30; hospital confinements, \$35 to \$45. Fifty per cent of the fee must be paid before time of delivery. A list of those who are indebted to physicians for previous confinements has been given to each member of the society.

The United States Civil Service Commission announces an open competitive examination for the position of Junior Graduate Nurse (\$1,620 per year), applications for which must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than February 7, 1938. Application blanks may be obtained from the Secretary, Board of U. S. Civil Service Examiners, at any first class post office or from the U. S. Civil Service Commission, Washington, D. C.

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Mallinckrodt Chemical Works

Hippuran, 100 Gm. bottle

Hippuran, 500 Gm. bottle

Sharp & Dohme

Rabies Vaccine (Phenol Killed) (Semple)

14 dose package, with syringe

John Wyeth & Brother, Inc.

Vaginal Suppositories Silver Picrate-Wyeth's,
1 grain (infant size)

AMERICAN EXPRESS TOUR TO A. M. A. CONVENTION

The forthcoming A.M.A. convention in San Francisco, June 13 to 17, is a splendid opportunity for a tour of the United States both going out and coming back. A special train tour will include such outstanding highlights of the North American continent as the Indian Detour, the Grand Canyon, Los Angeles, Riverside and Santa Catalina Island on the way to San Francisco. A choice of two return routes are possible, one of which visits

the charming cities of Portland, Seattle, Victoria and Vancouver and the beautiful scenic spots of the Canadian Rockies; the second route travels via Yellowstone National Park, Salt Lake City, Royal Gorge, Colorado Springs, and Denver. There is an all-inclusive price for the tour which includes transportation from home-town to home-town, though the tour starts officially at Chicago on Monday, June sixth, from which point an American Express escort will join the group. Other information appears in the advertisement of the American Express Company on page xix of this JOURNAL.

Considerable interest has been aroused with the announcement of an award to be made by the American Association of Obstetricians, Gynecologists and Abdominal Surgeons and the secretary of the Association, Dr. James R. Bloss, Huntington, W. Va., has sent the following regulations governing the award:

(1) "The award which shall be known as 'The Foundation Prize' shall consist of \$500.00."

(2) "Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal surgery."

(3) "Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant."

(4) "Manuscripts must be limited to 5000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis."

(5) "The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the Journal of the Author's choice. Unsuccessful contributions will be returned promptly to their authors."

(6) "All manuscripts entered in a given year must be in the hands of the Secretary before June 1st."

(7) "The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation."

(8) "The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting."

Indiana University News Notes

DENTISTS MEET

The annual postgraduate clinics sponsored by the Indianapolis Dental Society were held January tenth at the Indiana University School of Dentistry. Approximately 500 Indiana dentists attended. The mid-winter officers' conference of the Indiana State Dental Association was held Sunday, January ninth, at the Washington Hotel. This meeting was held in connection with the annual winter clinics at the I.U. dental school. Dr. H. J. Longcamp, of Aurora, association president, presided at the Sunday meeting. County chairmen made reports on their divisions.

The clinic program opened at 1 o'clock Monday afternoon, January tenth, at the Clinical Laboratories of the I.U. School of Dentistry and continued through the afternoon. The annual dinner meeting was held that evening at the Indianapolis Athletic Club. Dr. R. A. Kent, president of the University of Louisville, was the principal speaker. The toastmaster was Dr. Douglas H. White, president of the dental alumni association. Officers of the association were elected for the new year.

Dr. Earl S. Gilchrist, of Indianapolis, was named president, Dr. Fred Leavell, Newcastle, vice-president, and Dr. John E. Buhler, Indianapolis, secretary.

Participating in the mid-winter conference of the State Dental Association were the following: Dr. Longcamp; Dr. A. R. Ross, Lafayette, secretary; Dr. William Bogie, Vincennes, treasurer; Dr. B. K. Westfall, Dr. J. L. Wilson, Dr. R. I. Blakeman, Dr. M. H. Westfall, Dr. E. E. Voyles, Dr. J. B. Carr, and Dr. G. D. Timmons, all of Indianapolis; Dr. R. C. Shurr, Valparaiso; Dr. F. W. Leavell, Newcastle; Dr. H. C. Dimmich and Dr. H. T. Berkeley, Fort Wayne; Dr. A. L. Harter, Kokomo, and Dr. R. R. Gillis, Hammond.

Indianapolis dentists and dental technicians who were in charge of the clinics at the Indiana University dental school were: Dr. Frank Denny, Dr. Bernard A. Martin, Dr. Donald H. Draper, Dr. William E. Barb, Dr. Walter E. Beyer, Dr. John H. Yates, Dr. John W. Geller, Dr. C. E. Worth, Dr. Warren V. Hanson, Dr. Paul R. Oldham, Dr. Robert G. Botkins, and Dr. Robert K. George, and Miss Jane Ferguson and Ally N. Burks, clinicians.

The Indianapolis chapter of the National Association of Cost Accountants was held at the Riley Hospital of the Indiana University Medical Center, Thursday, January 27. Albert Scheidt, assistant administrator of the Medical Center, was the principal speaker at the dinner of the chapter. J. O.

Waymire, of the Eli Lilly Company, president of the Indianapolis chapter of Cost Accountants, presided, and J. B. H. Martin, administrator of the Medical Center, gave a brief talk on the work of the Center and the State Hospitals.

A tour of the University hospitals and laboratories and an inspection of the University's business offices were held Thursday afternoon.



Dr. James H. Taylor has recently presented a most valuable picture of the last faculty of the Indiana Medical College, 1878. During that summer the name of the school was changed to the Medical College of Indiana, and the original College of Physicians and Surgeons was taken into the group. The latter had been in existence for three or four years, while the Indiana Medical College was organized in 1869. The group shown in the picture donated by Dr. Taylor includes Dr. John Chambers, professor of anatomy; Dr. Charles E. Wright, professor of materia medica and therapeutics; Dr. Ryland E. Brown, professor of physiology; Mr. Wm. M. Bullard, professor of chemistry; Dr. Thomas B. Harvey, professor of diseases of women and abdominal surgery; Dr. George W. Mears, professor of obstetrics; Dr. John A. Cominore, professor of surgery; Dr. William B. Fletcher, professor of medicine; Dr. Joseph W. Marsee, demonstrator of anatomy and lecturer on clinical surgery.

Societies — Institutions

INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

The Indiana midwinter meeting of the Council of the Indiana State Medical Association convened at 10:35 a. m., Sunday, January 16, 1938, in private dining room No. 1 in the Columbia Club, Indianapolis, with Dr. M. A. Austin, of Anderson, chairman, presiding. Roll call showed 100 per cent attendance, as follows:

Members of the Council:

First District—I. C. Barclay, Evansville
Second District—H. C. Wadsworth, Washington
Third District—W. H. Garner, New Albany
Fourth District—M. C. McKain, Columbus
Fifth District—O. O. Alexander, Terre Haute
Sixth District—Samuel Kennedy, Shelbyville
Seventh District—C. J. Clark, Indianapolis
Eighth District—M. A. Austin, Anderson
Ninth District—F. T. Romberger, Lafayette
Tenth District—N. K. Forster, Hammond
Eleventh District—Ira Perry, North Manchester
Twelfth District—A. J. Sparks, Fort Wayne
Thirteenth District—W. B. Christophel, Mishawaka

Officers:

E. D. Clark, president 1937
H. M. Baker, president 1938
E. M. VanBuskirk, president-elect
A. F. Weyerbacher, treasurer
E. M. Shanklin, editor of THE JOURNAL
T. A. Hendricks, executive secretary
F. S. Crockett, Lafayette, chairman of the Committee on Inter-Allied Professional Conference.

As the minutes of the October, 1937, meetings of the Council in French Lick were approved as printed in the November JOURNAL, on motion, duly seconded and carried, these minutes were not read.

REPORTS OF COUNCILORS BY DISTRICTS

The short, informal reports of the councilors showed that medical organization in each district is in splendid condition. District meetings were reported scheduled as follows for 1938:

First District—Evansville, June 9, 1938.
Second District—McCormick Creek State Park, Owen County, May 18, 1938.
Third District—French Lick. Date not yet set.
Fourth District—Madison, sometime in May.
Fifth District—Terre Haute, May 6, 1938.
Sixth District—Richmond. Date not yet set.
Seventh District—Indianapolis. Date not yet set.
Eighth District—Muncie, May 10, 1938. (Joint meeting with the Muncie Academy of Medicine.)
Ninth District—Noblesville, May 17, 1938.
Tenth District—Valparaiso, April 8, 1938.
Eleventh District—Logansport, May 18, 1938.
Twelfth District—May 26, 1938.
Thirteenth District—Plymouth, November 2, 1938.

It was announced that the postgraduate course in Indianapolis had been scheduled tentatively for the week of May 23 to 27, 1938.

Dr. Forster, Tenth District, gave the following report: "During the past year the component societies of the Tenth District made up of Jasper-Newton counties, Porter County, and Lake County have continued to show progress in their various activities. Membership standards have been well maintained and there has been a better spirit of cooperation in matters affecting the welfare of the medical profession, locally, and in their attitude toward the State and National Associations. There have been no ethical problems of a serious nature to contend with, and few malpractice suits have been brought to our attention. The various committees have performed their work with interest and there has been considerable improvement in the attitude of the members in assuming the responsibilities connected with these duties. All of the county societies have held regular meetings which have been well attended, and because of the excellent character of the programs have added to the interest of the profession in medical topics.

"Lake County had the honor of entertaining the district at the annual meeting, which was held in April, 1937, at Gary. A splendid program was presented at a dinner meeting and the presentation of the various papers was most instructive and entertaining. Officers elected for the ensuing year were: President, G. R. Douglas, M.D.; vice-president, C. H. DeWitt, M.D.; secretary, C. M. Davis, M.D., all of Valparaiso.

"The next meeting of the district will be held on April 8, 1938, at Valparaiso.

"We deeply regret to record the passing of a former councilor and chairman of the Council, Dr. E. E. Evans, of Gary, whose interest, cooperation, and splendid work were always a source of inspiration for those with whom he was associated. Likewise the death of Dr. J. R. Pugh, a recent president of the Lake County Medical Society, is deeply deplored. To the families of other members who have answered the call we extend our sympathy and the expression that we will miss them greatly.

"The Tenth District has in no way diminished its interests or its spirit of cooperation in attempting to establish as a component part an active, progressive and militant State Medical Association."

A motion was made by Dr. Forster, seconded by Dr. Wadsworth, and passed, that a committee be appointed to draw up some resolutions expressing the appreciation of the Council for Dr. Evans' services to the Council and the State Association. Dr. Forster and Dr. Shanklin were appointed by the chair.

Dr. Sparks, upon the request of the Fort Wayne Medical Society, presented for inspection a photostatic copy of an insurance certificate, filled out by a chiropractor who had signed "M.D." after his name. Dr. Alexander moved that this matter be referred to the State Board of Medical Registration and Examination for any action that the Board might see fit to take. This motion was seconded by Dr. Forster, and carried. The chairman appointed Dr. Sparks a committee of one to take this case up with Dr. Bowers, secretary of the State Board of Medical Registration and Examination.

Dr. Sparks also brought to the attention of the Council the question of honorary membership of a member of the Twelfth District who has not yet reached the age of 75 but who is retired. The Council stated that the answer to this question could be found in the Constitution and By-Laws of the Association.

REPORTS OF OFFICERS

Dr. E. D. Clark, 1937 president, thanked the Council and the committees for the excellent work done during the past year. "I want to say again that it is my belief that the biggest thing this society has done during the past year is the syphilis campaign. I want to thank you all for the confidence you placed in me in making me your president."

Dr. Herman M. Baker, president. "In our profession today we have a small number of men who honestly believe in their superior right to influence and direct the

entire profession and who are unable to see or are unwilling to admit that the methods which they are using are harmful to the larger group. The wisdom of long experience would indicate that the majority often makes mistakes, but I am one of those who believe that rule by small minority groups unfailingly results in worse mistakes, for rule by class takes counsel from itself and fails to heed the problems and, therefore, the good of all kinds and conditions of the greater mass of men. In the long run, the instincts of the common man are to live and let live, and to work out the best and safest balance for the common good.

"This is why I believe so strongly that the leadership in medicine today must fight to restore and maintain what President Roosevelt has recently called 'the moral integrity of the democracy' of organized medicine. I think that it is extremely essential that this principle be insisted upon by our state and national organizations in any program that we may adopt.

"As I have said before, the evidences of change are written large in the world today and without question the organized medical profession must change its views and its program to accommodate the changing social conditions, which the signs of the times so definitely forecast. We must remember that physicians have been trained to think in terms of pathology. All of the emphasis in training to the present time has been placed on the treatment of the sick individual and little training has been given the physician in the prevention of disease.

"With the rapid development of industrial civilization and with the increasing complexity of modern life, the social sciences have come into being and doctors have not been taught to think in terms of the social sciences. It appears to me that it has now become extremely important for them to change their way of thinking. Today there is no machinery available for bringing to the doctor knowledge of this newer problem of the relation of medicine to the social sciences excepting organized medicine. It is essential that certain criteria be established to measure, if you please, the extent or the scope of a program such as this, and I think the criterion can be fixed in just a few words, namely, 'for the public good.'

"During the past few years there has grown up, and is growing with increasing rapidity each day, a body of new techniques, new tools for combating disease and for preventive medicine. We are soon going to see the marriage laws of the state rewritten. The syphilis control program, the proposed pneumonia control program and a vast number of other programs affecting the public health are being developed.

"It is only through organized medicine that the physician can be kept in touch with and taught these newer techniques. It will be the policy of the present administration of the Indiana State Medical Association to do everything possible to the end that this may be accomplished. Each month there will be carried in THE JOURNAL a series of articles dealing with some special phase of preventive medicine or allied subject, and it is hoped that in the same month each county medical society will devote one program to a discussion of the subject with regard to its relation to the local community.

"Since laboratories are going to play such an extremely important role in the new program and since many of these newer techniques are going to require highly specialized services for their proper rendition, the problem immediately confronts us as to control of these various mechanisms. I ask you to think seriously of the development of machinery for the rating and approving of such specialized services by the Indiana State Medical Association. Only in this manner can we maintain the necessary control over them.

"I ask that you authorize the expenditure of funds to carry out the program, 'The Care of All the People', as laid down for activities in the various states by the American Medical Association. At the moment this program is quite indefinite because it was only announced

yesterday—methods and procedures are being formulated. I would recommend that the Executive Committee be authorized to provide such funds as may be necessary and that the President may appoint such committees as may be needed."

Dr. A. F. Weyerbacher, treasurer, summarized the following annual financial report which was compiled by George S. Olive and Company, certified public accountants:

TREASURER'S REPORT

January 10, 1938

The Council,
Indiana State Medical Association,
Indianapolis, Ind.
Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1937. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as reflected by the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds at December 31, 1937; (3) statement of receipts and disbursements of all funds for the year ended December 31, 1937. A list of the statements is presented on the page following this text.

General Comments

In exhibit A is presented an analysis of the increase in assets of the Association for the year ended December 31, 1937, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in exhibit B. We examined securities of the Association and confirmed bank balances with the depositories.

Details of the receipts and disbursements of cash in the general fund, The Journal of the Indiana State Medical Association, and the medical defense fund are presented in exhibits C, D, and E. With respect to the comparative statement of cash receipts and disbursements of the general fund, it will be noted that there is reflected for the current year a decrease of interest income. This decrease results from a resolution of the Executive Committee dated January 10, 1937, segregating income from securities of the general and medical defense funds which income had, in prior years, all been credited to the general fund. The result of this change in accounting method is that in exhibit C the interest income for the year 1936 was received from all securities of the Association, whereas for the year 1937 the interest income reflected in exhibit C is from securities of the general fund only.

Yours very truly,

GEORGE S. OLIVE & CO.,
Certified Public Accountants

Exhibit A

INDIANA STATE MEDICAL ASSOCIATION

Analysis of Increase in Assets, All Funds.

Year Ended December 31, 1937

TOTAL ASSETS, DEC. 31, 1937—EXHIBIT B.....\$45,213.84
TOTAL ASSETS, DEC. 31, 1936..... 42,692.91

NET INCREASE\$ 2,520.93

Arising from the following sources:

Excess of operating cash
receipts over operating
disbursements — gen-
eral fund, year ended
Dec. 31, 1937:
Receipts—Exhibit C..\$26,276.50
Deduct: Proceeds
from securities... 2,000.00

Net operating re-
ceipts \$24,276.50

Disbursements — Ex-	
hibit C.....	27,298.60
Deduct: Disbursed	
for securities ...	5,000.00
Net operating dis-	
bursements ..	22,298.60
Excess of oper-	
ating receipts	1,977.90
Excess of cash receipts	
over disbursements—	
medical defense fund,	
year ended Dec. 31,	
1937	696.43
	2,674.33
Less:	
Excess of cash dis-	
bursements over re-	
ceipts—The Journal	
of the Indiana State	
Medical Association	18.40
Reduction of invest-	
ment — Rokeby	
Apartment Hotel	
bond	15.00
Reduction of invest-	
ment — Beachton	
Court Apartment	
bonds	120.00
	153.40
Total net increase.	\$ 2,520.93

Exhibit B

Statement of Assets, All Funds, at December 31, 1937

General Fund:

Cash on deposit—Exhibit C.....	\$ 4,066.69
Petty cash fund.....	200.00
Investments:	
Fort Wayne, Indiana, School Improve-	
ment bonds	3,000.00
Marion County, Indiana, Flood Pre-	
vention bonds	3,000.00
Indianapolis City Hospital bonds....	5,000.00
United States Treasury bonds.....	10,000.00
Beachton Court Apartments, Chicago	
—bonds evidenced by certificates	
of deposit	3,880.00
Rokeby Apartment Hotel, Chicago—	
bond evidenced by certificate of	
deposit	965.00

Total general fund assets..... \$30,111.69

Journal of The Indiana State Medical Association:

Cash on deposit—Exhibit D.....	2,572.76
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Medical Defense Fund:

Cash on deposit—Exhibit E.....	2,529.39
Investments:	
Fort Wayne, Indiana, School Improve-	
ment bonds	2,000.00
Marion County, Indiana, Flood Pre-	
vention bonds	2,000.00
Indianapolis City Hospital bond....	1,000.00
United States Treasury bonds.....	5,000.00

Total medical defense fund assets. 12,529.39

Total assets—all funds—Exhibit A..... \$45,213.84

Exhibit C

Comparative Statement of Cash Receipts and Disbursements,
Years Ended December 31, 1937, and December 31, 1936

	GENERAL FUND		Increase —Decrease
	—Year Ended— Dec. 31, 1937	Dec. 31, 1936	
Cash balance at beginning of year	\$ 5,088.79	\$ 2,528.54	\$ 2,560.25
Receipts:			
Membership dues	20,720.00	19,733.00	987.00
Income from exhibits	2,600.00	3,467.50	—\$87.50
Rokeby Liquidation Trust Distribution	15.00	20.00	—5.00
Beachton Court Liquidation Trust Distribution	120.00	.....	120.00
Interest income:			
United States Government bonds	286.25	311.25	—25.00
Indianapolis, Indiana, City Hospital bonds	223.75	247.50	—23.75
Marion County, Indiana, Flood Prevention bonds	127.50	212.50	—85.00
Fort Wayne, Indiana, School Improvement bonds	135.00	225.00	—90.00
Lake County, Indiana, State Highway Aid bonds	49.00	100.00	—51.00
Proceeds from maturity of Lake County, Indiana, State Highway Aid bonds	2,000.00	.....	2,000.00
Total receipts	26,276.50	24,316.75	1,959.75
Beginning balance plus cash receipts	31,365.29	26,845.29	4,520.00
Disbursements:			
Transfers of applicable portion of dues to:			
The Journal of the Indiana State Medical Association—Exhibit D	5,970.00	5,678.00	292.00
Medical defense fund—Exhibit E	2,212.50	2,108.25	104.25
Headquarters office expense	9,285.76	8,670.27	615.49
Publicity committee	433.09	337.85	95.24
Public policy	943.62	541.23	402.39
Council	166.57	122.91	43.66
Officers	268.50	603.29	—334.79
Annual session	2,169.84	2,678.39	—508.55
Miscellaneous committees	433.16	634.54	—201.38
Postgraduate study	217.09	381.77	—164.68
Federal O. A. B. tax	51.95	.....	51.95
Premium and accrued interest on purchase of United States Treasury bonds	146.52	.....	146.52
Disbursement for United States Treasury bonds	5,000.00	.....	5,000.00
Total disbursements	27,298.60	21,756.50	5,542.10
Cash balance at end of year	\$ 4,066.69	\$ 5,088.79	—\$1,022.10

Exhibit D

(Exhibit B)
Statement of Cash Receipts and Disbursements, Year Ended
December 31, 1937

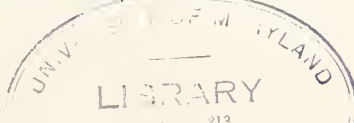
THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION	
Balance January 1, 1937	\$ 2,591.16
Receipts:	
Subscriptions—members—Exhibit C	\$ 5,970.00
Subscriptions—non-members	100.75
Advertising	10,582.91
Collections on accounts receivable	368.66
Single copy sales	14.75
Electrotypes	81.39
Miscellaneous	11.00
Total receipts	17,129.46
	19,720.62
Disbursements:	
Editorial and management salaries	6,617.50
Printing	7,166.64
Postage	610.97
Electrotypes	543.40
Office rent and light	737.67
Office supplies	542.00
Press clippings	103.30
Federal O. A. B. tax	50.33
Extras—help and printing	470.70
Advertising commissions	89.10
Convention reporter	216.25
Total disbursements	17,147.86
Balance December 31, 1937—Exhibit B	\$ 2,572.76

Exhibit E

Statement of Cash Receipts and Disbursements, Year Ended
December 31, 1937
MEDICAL DEFENSE FUND

Balance January 1, 1937	\$1,832.96
Receipts:	
Transfer of applicable portion of dues from the general fund—Exhibit C	\$2,212.50
Interest income:	
United States Treasury bonds	155.00
Indianapolis, Indiana, City Hospital bond	23.75
Marion County Flood Prevention bonds	85.00
Fort Wayne, Indiana, School Improvement bonds	90.00
Total receipts	2,566.25
	4,399.21
Disbursements:	
Attorney's retainer fee	600.00
Malpractice fees	1,254.42
Treasurer's bond	15.00
Interest collection charges	.40
Total disbursements	1,869.82
Balance December 31, 1937—Exhibit B	\$2,529.39

Dr. E. M. Shanklin, editor of THE JOURNAL, summarized the work of THE JOURNAL for the past year, saying that THE JOURNAL had carried more reading pages in 1937 than in any year in its history. Within two or three weeks THE JOURNAL program for the next six to eight months will be completed. He called attention to the rule that has been in force for the last five years that "no member shall have more than one original article in THE JOURNAL in one year. We can't accept all the papers that are submitted to us, even from our own membership, but we are always on the lookout for good



material. When you attend a meeting and hear an especially good paper, I wish you would either advise THE JOURNAL office of it or have the man send his paper in directly. We are glad to get all the help we can in this job."

Dr. C. J. Clark made the suggestion, which was discussed favorably by the Council, that THE JOURNAL create a department of medical economics, the editor to select men from the different branches of business—banking, architecture, real estate, accounting, insurance, etc.—to write articles on certain phases of these businesses which are of interest to physicians, such as bonds, preferred stocks, what constitutes a well-planned office, simplified forms of bookkeeping, etc., in order to combat "throw-away" pamphlets and journals. "It seems to me," Dr. Clark said, "that this department could be made very interesting and helpful to the doctors. I think most men enjoy reading that sort of thing and I believe the best way to combat these pamphlets would be to give the doctors in their own JOURNAL the things for which they are reading those pamphlets."

The secretary stated that the Council members could co-operate with THE JOURNAL by asking every detail man who visits their offices whether or not his company is advertising in THE JOURNAL. He asked that the councilors and all physicians clip coupons from THE JOURNAL and answer JOURNAL ads.

UNFINISHED BUSINESS

1. Pulaski County Medical Society Situation. Dr. Christopher reported that he had written several letters and had called on the secretary of the Pulaski County Medical Society and also the other physicians in Winamac with the idea of getting them to hold meetings again. Four of the ten physicians in the county are members of the State Association. To date nothing has been done in the way of reorganization. The matter has been referred to the Executive Committee, and the secretary has written letters to the Pulaski County secretary but no reply has been received.

2. Report on Meeting of Committee on Inter-Allied Professional Conference. Dr. F. S. Crockett, chairman. "The report which I have to give is the report of the committee appointed by you at the French Lick session concerning the inter-allied organization proposed by Dean Jordan of Purdue University. At the meeting on December 2 at Purdue University, at which President Clark and Tom Hendricks were present, the dean made some introductory remarks, explaining the history of the movement in the State and suggesting ways and means in which the various health professions could cooperate to bring about a closer inter-professional relationship that would be mutually beneficial and also more efficiently serve the public health of the State. I am going to read the points that he suggested might well be considered by the health professions:

1. Medical care of the indigent. He pointed out that in many cases the burden for this medical care had fallen rather heavily on the physicians, hospitals, dentists and pharmacists, and that it seemed only fair that the whole community should share the burden rather than the professional groups involved.

2. The participation of state and national government in medical care had reached a point where it seemed wise for the professions to seriously consider the trends and the ultimate goals of such participation, especially insofar as these would affect the professional groups.

3. He pointed out the danger of regulation of medical care by outside sources, calling attention to the fact that if laws are to be passed socializing medicine, then the health groups should have something to say in the drafting of such laws.

4. He discussed the need of a poison law in the State, pointing out wherein our present lack of control of the sale of poisons was detrimental to the public health.

5. He spoke of the cooperation that the various health organizations should give Dr. Parran in his effort to control venereal diseases.

6. The need of better regulations covering the manufacture, advertisement and sale of foods and drugs was pointed out and the part that the health professions should take in urging such regulations was suggested.

7. The value of a cooperating agency that could immediately call upon all of the health professions in case of local, state or national emergencies.

8. Dean Jordan pointed out that irritating matters that might affect local groups could not be a matter for discussion by a state cooperative group, but that, if there was cooperation and harmony among the health professions in the State, naturally such activities would filter down to the local groups and assist in ironing out misunderstandings that might present local problems.

"Your committee, Dr. Romberger, Dr. Thomas and myself, sat in and listened to this with a great deal of interest and it was our opinion that we would recommend back to you that you take further interest in it, that you subscribe to it, that you appoint a committee to meet with similar committees from the other groups mentioned, a committee which, according to the judgment of the group which met at Purdue, would not exceed five, two of whom should be the president and perhaps the chairman of the legislative committee, and that you so notify Dean Jordan, whose duty it would be to call first a preliminary meeting of these committees and from that might flow other meetings and other activities. The program cannot be outlined definitely in every detail, but this committee would serve as a cooperating, coordinating agent wherever common interests were touched. We leave that as our recommendation."

Dr. Alexander made the motion, following out the suggestions of Dr. Crockett, that the chairman be empowered to appoint the committee outlined by Dr. Crockett. This motion was seconded unanimously, and passed.

Dr. Romberger. "I believe you men fully realize the tremendous importance of this thing. It is of supreme importance. It might lead to something of the nature of a conference of these various bodies and much good can come out of it. I am glad to see this Council take that action."

Following discussion the chairman appointed the following committee to represent the Association in this inter-allied professional group: H. M. Baker, Evansville, president; N. M. Beatty, Indianapolis, chairman of Legislative Committee; Floyd T. Romberger, Lafayette; G. A. Thomas, Lafayette, and M. A. Austin, Anderson, chairman of the Council.

3. Limitation of Terms of Editorial Board Members and Addition of One Member to the Board. The secretary read from the minutes of the meeting of the Council of October 6 at French Lick as follows:

"Dr. Shanklin reported that the Editorial Board, in its meeting on Tuesday, October 5, had discussed the matter of limiting the terms of the Editorial Board members to three years, as suggested by various members of the Association, and increasing the board membership to six instead of five members as at present, and that the members of the Editorial Board were entirely in accord with these suggestions.

"Dr. Forster moved 'that the Editorial Board be increased to six members and that the term of each member be reduced to three years.'

"Dr. Romberger amended the motion 'to include the pro-rating of the years of service of those already elected' and also added 'that this matter be given the proper thought and final action be taken at the mid-winter meeting.'

"Dr. C. J. Clark seconded the amendment, and it was passed unanimously. The motion made by Dr. Forster as amended was carried."

Dr. C. J. Clark moved that the Council pass finally on the motion made at the October meeting. Motion seconded by Dr. Forster, and carried.

The chairman called for nominations for a sixth member of the Editorial Board.

Dr. Wadsworth, upon instruction by the Second District Medical Society at its annual meeting, placed in nomination the name of Dr. J. B. Maple, of Sullivan, as a member of the Editorial Board. Dr. Romberger moved that the nominations be closed and that the secretary cast the unanimous vote of the Council for Dr. Maple. Motion duly seconded and carried, and Dr. Maple was declared elected as a member of the Editorial Board for a three-year term.

4. New Contract for Printing THE JOURNAL. The secretary announced that the Association had contracted with the C. E. Pauley Company of Indianapolis to print THE JOURNAL for the coming two years.

5. Report on Physician Who Was Member of the Association in 1937, Who Is Operating a Quack Cancer Institution. Investigation made by the councilor of the district confirmed the report that the physician in question is operating an unethical cancer institution and that he was president of his local medical society last year. Following considerable discussion by Drs. Alexander, Wadsworth, C. J. Clark, and Austin, Dr. Alexander made the motion "that this Council communicate with the secretary of the Putnam County Medical Society, the communication quoting the information that has been received from Dr. West, suggesting that after due investigation by the councilor of the district this information has been found to be true, and that we suggest that if possible the Putnam County Medical Society take some means to obtain the resignation or to exclude from the Putnam County Medical Society this doctor." Dr. Wadsworth seconded this motion, which was carried.

6. Report on Physician Whose License Has Been Revoked Because of Violation of the Narcotic Law. This physician was a member of the State Association in 1937. Dr. Wadsworth reported that he had communicated with the secretary of the county society in which the physician had held membership and he had been informed that the physician in question is no longer a member of that society.

7. Executive Session. The Council went into executive session. The salary of the Executive Secretary was raised and recommendations were made for an increase in salary for the members of the headquarters staff.

LUNCHEON

The Council recessed for luncheon in Private Dining Room No. 2 of the Columbia Club.

The following guests and committee chairmen were present and gave brief reports on the activities of their offices:

Dr. A. M. Mitchell, chairman, Committee on Secretaries' conference, gave an outline of the program for the Secretaries' conference which will be held in Chicago on Saturday, February 12, in connection with the Northwest Conference. He urged councilors and county society officers to be present at this conference. He also told of the four-day health education exhibit which the Vigo County Medical Society is sponsoring in cooperation with the Shrine the latter part of January.

Dr. C. A. Nafe, chairman, Executive Committee. "It has been a distinct pleasure to serve on the Executive Committee because of the very fine cooperation of the other members of the committee, and they should be commended, particularly those from out of the city, for the amount of time they have spent in coming here and serving in that capacity, etc. We have had a number of requests from doctors throughout the state that the State Medical Association become more militant in its attitude toward quack practice that seems to flourish at present. Probably the Council or the House of Delegates in the future should give some study and some consideration to a plan whereby the State Medical Association could be of service to the public in eliminating some of this. The Executive Committee would be glad to answer any questions and to receive any constructive criticism that you might have."

Dr. V. K. Harvey, secretary, State Board of Health, spoke of the vital statistics report for 1937 which had just been completed. "One of the significant things is the decided drop in the general death rate and the specific death rate in communicable diseases. I have in mind the death rate in diphtheria which is the lowest on record in the history of the state. This was 61 in 1936 and 41 in 1937, a new low. Typhoid fever also has the lowest death rate in the history of the state, 1.1 per 100,000 population. I am particularly pleased with the drop in the maternal death rate, 4.7 in 1936, 3.5 in 1937, which represents a 25 per cent decrease. It seems to me the answer for this decrease is two-fold. We are getting a better type of medical care as years go on and there is a keener appreciation on the part of the public that it can get good medical attention if they want it.

"I would like to take this opportunity to thank the officers of the State Medical Association, the Executive Committee, the Publicity Committee, Mr. Hendricks and his office, and I hope we may continue to enjoy the fine cooperation and relationship that we have in the last few years."

Dr. W. D. Gatch, dean, Indiana University School of Medicine. "The relation of the medical school with the physicians of the State and with the State Board of Health is unique in the State of Indiana on account of this Indiana Plan, and I wish to thank the Executive Committee, the Council and Dr. Harvey for the splendid work they have done and the splendid cooperation we have had with them throughout the year.

"The most important development in medical education is the ever-increasing emphasis on postgraduate study, not only for practitioners but for recent graduates who are interns and residents. With the creation of national boards we are faced with the situation of providing training for those who wish to specialize. The boy who wants to fit himself for surgery, or some other specialty now must spend two to three years in an approved hospital. There is a great demand for more residencies. I hope that hospitals in this state will adopt the resident system so that more young men who want to go into special work may have the opportunity for training. I wish to thank the officers and representatives of the Association for their sympathetic cooperation with the medical school.

Dr. C. H. McCaskey, member of the Executive Committee; **Dr. Don F. Cameron**, Fort Wayne, **Dr. F. S. Crockett**, Lafayette, delegates to the American Medical Association, and **Dr. R. L. Sensenich**, member of the Board of Trustees of the American Medical Association, called the attention of the councilors and the officers of the Association to the editorial which appeared in the January 15 issue of THE JOURNAL of the American Medical Association entitled, "Medical Care for All the People," embodying the resolution which was recently passed by the Board of Trustees. This resolution was drawn up as a result of a recent conference between representatives of the American Medical Association and the American Public Health Association and the United States Public Health Service. This resolution calls upon the local county medical societies to assume leadership in all medical activities in their communities. Dr. Sensenich stated that the resolution meant that the state societies should make necessary studies, establish plans and supervise this work in order that organized medicine may meet local needs. This may mean new committees both in the State Association and in the county medical societies in order that ways and means may be worked out so that the individual who cannot afford otherwise may receive medical services at a less than average fee. "Some machinery should be provided whereby the individual has an opportunity to determine what he should pay, over a reasonable period of time in proportion to his salary, and by which he will be protected from the unscrupulous physician who overcharges him.

"Laboratory services to the local community in connection with the treatment of pneumonia are now absolutely necessary.

"If medical organization can demonstrate that it can successfully meet this problem of supplying medical care for all the people, there will be no danger of socialized or subsidized medicine. If it is demonstrated however that medicine cannot do what it claims it can do properly, then sooner or later the government will step in. This must receive the serious consideration of organized medicine in the coming year. It is a matter of determining facts, suggesting remedies, and putting those remedies in effect under medical supervision."

Dr. F. M. Gastineau, member of the Bureau of Publicity. (The chairman announced that Dr. W. N. Wishard, Sr., the chairman of the Bureau of Publicity, was ill in the hospital, and the secretary was instructed to send him greetings from the Council and wishes for his speedy recovery.) Dr. Gastineau spoke of the work of the Bureau during the past year and said, "We will cooperate the best we can in following out Dr. Baker's ideas on preventive medicine by supporting them with releases in the papers."

Dr. N. M. Beatty, chairman of the Legislative Committee and Convention Arrangements, spoke of the fact that convention accommodations for 1938 will cost more than in previous years but, with better facilities, increased income can be realized on the commercial exhibit. He also mentioned the suggestion made by Dr. C. J. Clark that the local society place displays in the store windows of the city. The local arrangements committee is prepared to act on this suggestion if it meets with the approval of the Council.

Dr. J. V. Cassady, chairman of Committee on Scientific Work, stated that the program committee would meet within the next two weeks and arrange a program of general and sectional meetings, as in previous years, for the interest of the physician in general practice rather than for special groups. "I think that the scientific program should not be displaced by the postgraduate course but the postgraduate week should merely supplement the scientific program of the State Association."

Dr. L. A. Ensminger, chairman of the Committee on Graduate Education. "The Committee on Graduate Education is appreciative of the continued confidence bestowed upon its activities, and will make every effort to justify this confidence. At this time the Committee has three matters for presentation to this Council:

"First— Date of the annual postgraduate meeting.

"Second—Consideration of extending the postgraduate meeting to make it available as a training course for the Medical Officers Reserve of the Army.

"Third— To remind the councilors of the desire of this committee to cooperate in the plans for the district meetings.

"The committee believes that May is the best month to hold the annual postgraduate meeting. May 23rd to 27th, inclusive, is the week of choice, with elective weeks of May 2nd to 7th, or 9th to 13th. So far as the committee knows these dates would not conflict with any district meetings as were announced in THE JOURNAL of January 1st.

"It is the desire of the United States Army to use the annual postgraduate course for medical-military instruction of the Medical Reserve Officers of this training area. This recognition of the value of our course by the Army places it on an equal basis with courses given at the Mayo Clinic, University of Michigan, etc. The committee feels that the course can be adapted for this training without in any way interfering with its usefulness for general postgraduate instruction. There are over three hundred medical reserve officers in this state who would obtain military credit for attendance. In view of these facts, the committee recommends that the use of this course as a medical-military training course be carried out.

"This committee is willing to cooperate in any manner possible with the various councilor districts in putting on their annual meetings. If the members of the committee may be of assistance in the arrangement of pro-

grams, selection of speakers, or in any other manner, they will be glad to do so. Funds are still available through the State Board of Health for defraying expenses of speakers on subjects involving child health or maternal welfare, and the committee will be glad to cooperate in getting such speakers whenever the councilor districts so desire.

"The round table discussion which was inaugurated last year proved to be immensely popular and successful, and the committee, with your consent, proposes to put it in the program again this year."

Dr. C. J. Clark made the motion that the Council accept the dates as suggested by the Graduate Education Committee, May 23 to 27, and that the Army be allowed to use the course providing its curriculum will fit in with that outlined by the postgraduate committee. Dr. Wadsworth seconded this motion which was carried.

Dr. E. E. Padgett, chairman of the Committee on the Control of Cancer. "The duties of this committee are to coordinate and cooperate with the various committees that have to do with this work in the State Association. This subject received a great deal of impetus last year and will be carried on this year by the National Federation of Women's Clubs which instituted last year the national campaign for educating the public in the things we know about cancer. I want the councilors to feel that they are a part of this program which is purely an educational proposition. I feel very strongly that two things are essential. No programs are to be arranged without the consent of the county medical society in that county in which the meeting will be held. Speakers as far as possible are to be selected from the counties in which the meetings are held. That gives the local physician a chance to talk to the people whom he serves. The national officers all insist that nothing will be done until the medical profession has been consulted in every move made. I think it is a fine thing."

Dr. F. W. Gregor, chairman of the Committee on Occupational Diseases, stated that as this is a new committee, its duties were not as yet definitely outlined. "However, I hope that as a result of the year's study and work we may be able to do something that is constructive for medicine and that we may be able to do something that will enable medicine to realize more fully its public obligation."

Dr. H. J. Norton, chairman of the Committee to Study Cultists and Irregular Practitioners. "This committee desires to do something about quacks. The committee proposes to gather information as to how other states meet this problem. Any suggestions that may be made will be gladly received."

The chairman suggested that it would be a good policy for every county medical society to have a similar committee, have a survey made, and get as complete a record as possible of all of the so-called cultists and quacks that are practicing in the various counties. A committee from each county medical society could get that information without very much trouble and send a copy of it to the state headquarters office for further reference.

The secretary announced that Dr. H. B. Mettel, director of the Bureau of Maternal and Child Health of the State Board of Health, and Dr. Harvey had to leave the meeting for Washington to attend the national child health conference. Dr. Mettel asked the secretary to state that any time that any of the councilors or officers of the State Association desire any program material from the Bureau of Maternal and Child Health, he will be very pleased to help supply that material to the various councilor districts and the local county medical societies.

Dr. O. W. Greer, director of Services for Crippled Children, State Department of Public Welfare. "As this program is comparatively new I have been occupied very largely in setting up the mechanics of the plan to give services to crippled children. I appreciate the appointment of an official liaison committee to assist me. I will be guided in my efforts by your liaison committee and the University and other official groups."

Albert Stump, attorney for the Association. Mr. Stump spoke of the possibility of the doctors developing along with the legal profession and other professional people a kind of a sense of community responsibility. He pointed out that many difficulties are due to the peculiar estrangement of law and medicine. "Doctors and lawyers ought to get together as they have never done before."

Slater Bartlow, director of Vocational Rehabilitation of the Indiana State Department of Public Instruction. "Vocational rehabilitation is essentially a service that begins where your services end." (Here Mr. Bartlow cited the case of a young man who had lost both arms and had been rehabilitated by his department.) "The whole spirit of the service is to encourage men to succeed in spite of their physical handicaps."

MEETING FOLLOWING LUNCHEON

Suggestions and Proposals for 1938 Session at Indianapolis

1. The dates set by the Executive Committee, Tuesday, Wednesday and Thursday, October 4, 5 and 6, 1938, and the place selected for the meeting, the Murat Temple, Indianapolis, were approved by the Council.

2. The following general outline for the program was approved:

Monday, October 3, 1938

Meeting of health officers

Tuesday, October 4, 1938

Morning—Registration

Golf, trap shooting and other sports

Afternoon—Council meeting

Meeting of House of Delegates

Golf continued

Evening—Smoker and stag party

Dinner for women doctors

Wednesday, October 5, 1938

Morning—Scientific meetings

Noon—Class and fraternity get-togethers and luncheons

Afternoon—Scientific meetings

Evening—Annual banquet or meeting for lay public

Thursday, October 6, 1938

Morning—Final meeting of House of Delegates and Council

Final scientific meeting

Adjournment at noon.

Dr. Romberger made the motion that a banquet rather than a lay public meeting be held. This motion was seconded and carried unanimously.

3. **Convention facilities for 1938.** Report written by Dr. Norman Beatty, chairman of the General Arrangements Committee, was presented to the Council.

4. **Scientific exhibit.** Dr. Romberger moved that the request of the chairman of the Scientific Exhibit Committee for funds with which to put on the 1938 scientific exhibit be referred to the Executive and Budget committees. This motion was duly seconded and carried.

5. **Employment of professional medical stenographers.** Dr. C. J. Clark moved that the employment of professional medical stenographers be continued. Motion seconded by Dr. Wadsworth, and carried.

6. **Banquet.** Dr. C. J. Clark moved that the banquet be held at the Murat Temple. Motion seconded by Dr. Romberger, and carried.

7. **Educational exhibits in downtown store windows.** Upon the motion of Dr. Romberger, seconded by Dr. C. J. Clark, the Council authorized the Convention Arrangements Committee to carry out this suggestion.

MEMBERSHIP REPORT BY DISTRICTS INDIANA STATE MEDICAL ASSOCIATION December 31, 1937

County Society	No. M. D.'s In County*	Members Dec. 31, 1937	Members Dec. 31, 1936	Loss-Gain	Eligible Non-Members	New Members	Removed and Retired	Deceased	Ineligible
1st District									
Posey	23	13	13	..	4	..	3	2	2
*Vanderburgh ..	167	124	111	13	24	12	13	5	3
Warrick ..	19	6	7	—1	10	..	3	..	..
Spencer ..	19	12	11	1	4	..	3	..	1
Perry	14	11	9	2	2	1	1	..	..
Gibson	32	27	24	3	..	..	5	2	1
Pike	12	8	5	3	..	2	..	..	1
Total	286	201	180	21	47	15	28	9	8
2nd District									
Knox	64	39	36	3	14	2	7	2	5
Daviess- Martin ..	35	24	22	2	7	3	1	2	2
Sullivan ..	25	21	22	—1	..	..	3	..	1
Greene	22	16	16	..	6	..	..	..	..
Owen	13	7	7	..	5	..	..	1	..
Monroe	38	35	36	—1	2	1	..	1	1
Total	197	142	139	3	34	6	11	6	9
3rd District									
Lawrence ..	29	22	23	—1	1	..	7	..	..
Orange	21	16	16	..	3	..	2	1	..
Crawford ..	9	3	3	..	6	..	..	..	..
Washington ..	9	7	8	—1	..	1	1	..	1
Scott	8	3	3	..	1	..	2	1	1
Clark	27	15	15	..	8	..	..	2	..
Floyd	46	36	35	1	3	1	2	3	3
Harrison ..	11	8	8	..	3	..	..	..	..
Dubois	25	19	14	5	5	4	1	1	..
Total	185	129	125	4	30	6	17	8	5
4th District									
Brown	4	..	..	..	2	..	..	..	2
Bartholomew ..	37	28	25	3	3	2	3	1	3
Decatur	25	20	18	2	4	1	1	2	..
Jackson	23	16	16	..	3	..	2	1	1
*Jennings ..	9	7	8	—1	1	..	2	..	..
Ripley	20	11	13	—2	6	1	5	..	1
Jefferson	28	20	21	—1	4	1	4	1	..
Switzerland ..	6	6	6	..	..	..	..	..	..
*Dearborn- Ohio	28	18	15	3	2	3	4	..	5
Total	180	126	122	4	25	8	21	5	12
5th District									
Parke	39	27	26	1	5	..	3	3	1
Putnam	17	15	17	—2	1	..	..	..	1
Vigo	135	116	114	2	10	5	5	..	6
Clay	21	15	12	3	2	2	2	..	2
Total	212	173	169	4	18	7	10	3	10
6th District									
Hancock	20	18	18	..	1	..	1	..	..
*Henry	42	35	33	2	3	2	2	1	2
Wayne-Union ..	85	53	53	..	16	3	8	2	9
Rush	24	20	20	..	2	1	3	1	1
Fayette- Franklin ..	29	21	22	—1	3	1	3	..	2
Shelby	33	20	21	—1	9	..	4	1	..
Total	233	167	167	..	34	7	21	5	14
7th District									
Hendricks ..	29	17	19	—2	6	..	4	..	3
*Marion	803	559	516	43	171	43	33	14	40
*Morgan	33	21	18	3	7	1	5	..	..
Johnson	24	11	12	—1	9	1	3	1	..
Total	889	608	565	43	193	45	45	15	43
8th District									
*Madison	97	72	70	2	9	4	10	2	4
*Delaware- Blackford ..	102	73	75	—2	19	1	5	4	3
Jay	24	13	14	—1	10	..	..	1	..
Randolph	26	20	20	..	2	..	4	1	..
Total	249	178	179	—1	40	5	19	8	7
9th District									
Benton	17	14	15	—1	..	1	1	1	2
Fountain- Warren ..	24	18	18	..	4	..	1	..	1
*Tippecanoe ..	98	90	82	8	4	9	8	1	1
Montgomery ..	46	30	31	—1	3	2	13	1	..
Clinton	32	22	22	..	5	..	2	..	3
Tipton	17	11	10	1	3	1	2	1	..
Boone	24	15	14	1	6	1	1	1	1
Hamilton	29	19	19	..	4	..	4	..	2
White	12	3	4	—1	8	..	2	1	..
Total	299	222	215	7	37	14	34	6	10

MEMBERSHIP REPORT—Continued

County Society	No. M. D.'s in County*	Members Dec. 31, 1937	Members Dec. 31, 1936	Loss-Gain	Eligible Non-Members	New Members	Removed and Retired	Deceased	Ineligible
10th District									
Lake	276	200	197	3	57	9	11	7	6
Porter	26	22	21	1	3	..	2	..	..
Jasper-Newton ..	28	16	14	2	6	3	5	2	..
Total	330	238	232	6	66	12	18	9	6
11th District									
Carroll	19	16	17	—1	..	1	2	1	1
*Cass	50	35	34	1	10	..	2	2	3
*Miami	37	24	22	2	9	2	1	3	1
*Wabash	36	28	24	4	4	5	4	..	1
Huntington ..	31	20	20	..	6	..	2	..	3
*Howard	45	33	28	5	2	3	5	2	3
Grant	85	54	54	..	21	2	5	2	6
Total	303	210	199	11	52	13	21	10	18
12th District									
LaGrange ..	13	11	7	4	1	2	1	..	..
Steuben	25	9	11	—2	12	..	4	..	..
Noble	30	26	27	—1	3	1	1	1	..
DeKalb	31	21	23	—2	2	..	5	2	1
Whitley	16	9	9	..	..	..	3	1	3
Allen	205	152	142	10	24	12	11	3	18
*Wells	22	17	17	..	5	1	..	1	..
*Adams	24	19	14	5	2	1	3	..	1
Total	366	264	250	14	49	17	28	8	23
13th District									
LaPorte	66	48	47	1	12	4	4	3	..
*St. Joseph ..	178	141	131	10	17	4	14	5	11
*Elkhart	77	65	61	4	7	6	3	1	2
Starke	7	5	..	5	1	4	1	..	..
Pulaski	10	4	4	..	6	..	..	..	..
Fulton	18	13	14	—1	5	1	..	..	..
Marshall	39	24	23	1	8	1	4	..	3
Kosciusko ..	31	21	19	2	5	2	2	1	3
Total	426	321	299	22	61	22	28	10	19
Summary by Districts									
1st District ..	286	201	180	21	47	15	28	9	8
2nd District ..	197	142	139	3	34	6	11	6	9
3rd District ..	185	129	125	4	30	6	17	8	5
4th District ..	180	126	122	4	25	8	21	5	12
5th District ..	212	173	169	4	18	7	10	3	10
6th District ..	233	167	167	..	34	7	21	5	14
7th District ..	889	608	565	43	193	45	45	15	43
8th District ..	249	178	179	—1	40	5	19	8	7
9th District ..	299	222	215	7	37	14	34	6	10
10th District ..	330	238	232	6	66	12	18	9	6
11th District ..	303	210	199	11	52	13	21	10	18
12th District ..	366	264	250	14	49	17	28	8	23
13th District ..	426	321	299	22	61	22	28	10	19
Total	4155	2979	2841	138	686	177	301	102	184

* Physicians are listed in the counties in which they hold membership, not in the counties in which they reside.

LEGISLATIVE PROBLEMS

Dr. Sensenich and Dr. Beatty discussed legislative problems from a national and a local angle, respectively.

Dr. Sensenich. "So far as the national picture is concerned there is apparently nothing immediately impending. The greatest danger is in the matter of subsidies."

Dr. Beatty. "The average member of our State Association is not sufficiently conversant with the specific things that are happening in a legislative way." Dr. Beatty advocated that each county medical society should see that arrangements are made for the care of all their people, if such has not already been done, that societies must do more than merely "be interested in our legislatures," and that a close alliance should be formed with county welfare directors and local trustees and the local medical societies.

"During the last few months we have taken the liberty to call upon the members of this Council for some work and we have received excellent results.

"Two weeks ago when Dr. Parran was in Indianapolis, I was interested in what he had to say. He went so far as to say in a public meeting in the evening that he did not see the necessity of socialized medicine. He said that he hoped the time would come when the physicians

generally over the United States would have the same public spirited point of view that the profession of Indiana has taken."

Dr. Sensenich. "I can assure you that the joint Secretaries' and Northwest Conference in Chicago Saturday and Sunday, February 12 and 13, is going to be a very interesting meeting. The American Medical Association is going out of its way in entertaining our conference. Representatives of the northwest states, sixteen of them, will meet on Sunday. This may possibly be made a national conference. Problems which will be uppermost in the programs of every medical organization during the coming year will be discussed. As many of our doctors should attend as possible."

ANNUAL SESSION OF AMERICAN MEDICAL ASSOCIATION

The Council was asked whether or not it wished the Executive Secretary to attend the annual meeting of the American Medical Association at San Francisco, June 13 to 17, 1938.

Dr. Forster. "This same question comes up every year. I make a motion that in the future the Executive Secretary is to attend all annual meetings of the American Medical Association." This motion was duly seconded and passed.

NEW BUSINESS

1. Contract with editor of THE JOURNAL. Formal contract, prepared by the attorney of the Association, was signed by Dr. Shanklin, editor of THE JOURNAL, and Dr. Austin, chairman of the Council.

2. Coordinated Program of Activity for 1938. Dr. Baker. "I asked the Publicity Bureau to gather information about various matters concerning the program that is under way, and Dr. Gastineau will outline these briefly for you."

Dr. Gastineau. "In the last part of last year we worked out a tentative scheme along preventive medicine. In keeping with the ideas of Dr. Baker in emphasizing the preventive phase of medicine, the following plan has been suggested:

- (1) Topic of the Month—announced in President's page each month in THE JOURNAL.
- (2) Attention could be called to the topic of the month by the secretary of each county medical society at monthly meetings.
- (3) If the county medical society desired, the topic of the month could be discussed by their own members or by an outside speaker.
- (4) Support for the topic of the month could be given through the Bureau of Publicity by release through newspapers or supplying speakers on the subject to luncheon clubs and P. T. A. or similar groups.
- (5) The topics should be selected now so that proper preparation can be made to put over the subject.
- (6) As far as possible, existing committees should be used or the work of special societies such as the Pediatric Group, T. B. Group, Eye Group, Ear, Nose and Throat Group. The technical phase of the subject should be thrashed out by the experts on the subject, and some agreement reached on the fundamentals of the subject so that the average doctor will understand the program.
- (7) If these ideas are approved, they should be presented at the Secretaries' Conference.

3. Suggested Plan for Consideration on Problem of Health Security. Dr. Forster read an outline of the plan proposed by him, which follows:

"About eighteen months ago this plan was presented to State Journal for publication. Publication was advised against by Board members because of Social Security agitation at the time. It was again presented in December, 1937, made ready for print, and again held up on advice of the Executive Committee. It has been pre-

sented to Bureau of Medical Economics of the A.M.A. and to the Lake County Medical Society.

Plan in Brief

- (1) Proposed that American Medical Association form subsidiary organization to be known as American Medical Benefit Association, or similar name—to be a non-profit organization under control of the A.M.A. or its Board of Trustees, but distinct from the A.M.A., and to be conducted by experienced insurance men.

- (2) Organization:

A.M.A.—Board of Trustees

A.M.B.A.—Board of Trustees

Bureau of Medical Benefits

State Assns. Medical Benefit Branches,
Board of Trustees or Executive Committees

State Bureaus of Medical Benefits

County Directors of Medical Benefits

County Medical Societies
Medical Benefit Committee, Trustees
or Executive Committees

Individual Doctor and Patient

- (3) Purpose:

- a. To furnish at minimum cost to American public a policy or contract entitling holder to secure medical services for illnesses and injuries (other than employment) from physician members.
- b. To pay physicians for such services rendered without further cost to policyholder.

- (4) Factors for consideration in operative policy:

- a. Limitations

Cost based on administration costs
Contingent fund
Regulation of those allowed to buy (income)
Time limit
Schedule of fees
Types of illnesses treated
Consultants
Change of physicians
Chronic invalidism
Hospitalization, etc.

- b. Policy to be sold to township trustees, with premium rates based on relief roll basis (as in payroll basis).

- (5) Funds for organization and operation:

- a. A.M.A. members contribute \$25.00, or sum necessary to start. 106,000 members means \$2,650,000.00 to organize.

- b. Subsequent yearly assessment if necessary, based on percentage of cases handled and paid for.

- c. Premium payments.

- d. Surplus funds, if any, to be placed in trust fund or annuity contract.

1. To care for, by payment of a monthly sum, all physicians 65 years of age who have ceased practice or are permanently disabled and have no source of income.

2. Extension of medical benefits.

- e. Payment for services.

Schedule of fees
Board of arbitration, investigation and
adjusting
State Boards of Arbitration
Right of appeal to central bureau
Payment to come from State Bureau to physician who must submit report on pre-determined form.

Alternate Plans

Old line Insurance Company
Scrip.

Advantages

1. Necessity for definite plan recognized.
2. Must emanate from medical profession if we are to control it.
3. More widespread medical care at lower cost.
4. Retention of right to choose own physician.
5. Stop gag for advances made by proponents of state medicine, social medicine, cooperative medicine, etc.
6. More equitable basis for competition among doctors and large institutions and corporations engaged in medical practice.
7. Payment for services rendered.
8. Payment for care of indigents and their right to choose own physician.
9. A positive, definite proposal in contrast to the heretofore negative, defensive attitude assumed by the medical profession in regard to this question.

"It is up to the A.M.A. to determine on thorough investigation if it can be made operative."

Dr. Forster: "This plan was presented in full to the Lake County Medical Society, February 13th. Motion passed that this plan be presented to the Council for its approval at this meeting in order that it may then be presented by our delegates to the House of Delegates at the A.M.A. meeting in San Francisco in June. I, therefore, make a motion that this suggested plan on Health Security as outlined be approved by the Council, and that the delegates of the Indiana State Medical Association be instructed to present it to the House of Delegates of the American Medical Association at the forthcoming meeting in San Francisco in June, 1938."

Following discussion of the plan by Drs. Perry, Nafe and Forster, Dr. Barclay moved that "since this plan seems so intimately related to group hospitalization and similar plans to which we are opposed, I move you the postponement of any action on this, and that mimeographed copies of it be sent to the councilors, with further action to be taken on this at a later meeting even though it will have to go over until 1939." Dr. Perry and Dr. Christophel seconded this motion.

Dr. Forster asked that the councilors, after reading the article, express themselves as to whether or not it should be printed in THE JOURNAL.

Upon voting, the motion made by Dr. Barclay was carried.

4. Payment of traveling expenses of Legislative Committee chairman. Following discussion, Dr. C. J. Clark made the motion that the traveling expenses of the legislative committee chairman to meetings in the interest of the Association be paid by the Association. Motion seconded by Dr. Wadsworth.

Dr. Romberger moved that the matter of reimbursing the chairman of this committee for his traveling expenses be referred to the Budget Committee. This motion was seconded by Dr. Forster and carried.

5. The chairman announced that Dr. William H. Kennedy was ill in the hospital and asked the secretary to write him a letter of sympathy and appreciation and to express the hope of the Council for his early recovery.

6. Violation of the Medical Practice Act. Dr. Perry moved that all matters of violation of the Medical Practice Act be referred to Dr. Norton, chairman of the Committee to Study Cultists and Irregular Practitioners. Motion seconded by Dr. Romberger, and carried.

7. The chairman, in complimenting the councilors upon their work and splendid cooperation, said, "If we can have the cooperation of men such as I have had the privilege of meeting here in the past year I think we can continue to have said of Indiana that it is in the forefront of all that is best in medicine."

ELECTIONS FOR 1938

1. **Two members of Executive Committee for 1938.** Dr. C. J. Clark moved that Dr. C. A. Nafe and Dr. C. H. McCaskey, the present members, be re-elected for 1938. Motion seconded by Drs. McKain and Kennedy, and carried.

2. **Chairman of Council.** Upon the motion of Dr. Romberger, seconded by Dr. Wadsworth, Dr. M. A. Austin was unanimously re-elected chairman of the Council for 1938.

There being no further business, the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

RESOLUTION—MADISON COUNTY MEDICAL SOCIETY

WHEREAS, Various committees are being formed over the country and as many as two hundred different plans have been formulated and reported to the American Medical Association, having to do with the problems of payment for medical and hospital care; and

WHEREAS, Only by cooperation and coordination can all these problems be met satisfactorily; and

WHEREAS, The final source of information, and all matters pertaining to the offensive and defensive action of the profession must rest with the state and national medical organizations;

THEREFORE, It is the opinion of the Madison County Medical Society that any action necessary to be taken in meeting these economic problems should be done by the regularly accredited representatives of the state and national organizations. Also it is recommended that every county society should have a special committee appointed that will give conscientious study to such local and state and national problems, and carry their recommendations to the state organization through its regular accredited delegate or directly to the State Executive Committee.

Passed by unanimous vote of the Madison County Medical Society at its regular meeting in Anderson, Indiana, on December 20, 1937.

T. M. JONES, M.D., *President*;
M. A. AUSTIN, M.D., *Secretary.*

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, December, 1937

	Dec.	Nov.	Oct.	Dcc.	Dcc.
Diseases	1937	1937	1937	1936	1935
Tuberculosis -----	126	137	432	117	135
Chicken Pox -----	260	233	93	520	482
Measles -----	292	97	55	42	53
Scarlet Fever -----	666	579	576	649	914
Smallpox -----	219	73	10	12	13
Typhoid Fever -----	8	20	16	8	13
Whooping Cough ----	75	109	107	152	185
Diphtheria -----	113	132	113	91	207
Influenza -----	193	102	124	205	142
Pneumonia -----	100	71	63	104	123
Mumps -----	8	16	19	51	163
Poliomyelitis -----	1	3	19	0	1
Meningitis -----	2	6	3	14	17
Undulant Fever ----	5	2	5	0	0
Silicosis -----	1	1	1	0	0
Tularemia -----	28	4	1	13	2

LOCAL SOCIETY REPORTS

BOONE COUNTY MEDICAL SOCIETY members met at Lebanon, in the Witham Hospital, January fourth, for a luncheon meeting. Dr. R. S. Henry, of Indianapolis, was the guest speaker. His subject was "Childhood Tuberculosis."

* * *

BARTHOLOMEW COUNTY MEDICAL SOCIETY elected officers at the December twenty-eighth meeting, as follows:

President, H. J. Norton, Columbus.
Vice-president, Gordon H. Haggard, Columbus.
Secretary-treasurer, B. K. Zaring, Columbus.

* * *

CARROLL COUNTY MEDICAL SOCIETY, according to newspaper announcements, has adopted a resolution in regard to fees in obstetrical cases, effective after January 1 of this year. The resolution includes the following: (1) All home confinements, \$30; (2) Hospital confinements, \$35 to \$45, depending upon type of care and distance from hospital; (3) Fifty per cent of fee must be paid before time of delivery; (4) A list of all who owe for previous confinements is in the hands of each member of the society. Any one who owes for previous case must settle in full before any doctor will take the succeeding case.

* * *

CLINTON COUNTY MEDICAL SOCIETY members have elected officers for 1938 as follows:

President, Robert A. Hedgecock, Frankfort.
Vice-president, Nelson B. Combs, Mulberry.
Secretary-treasurer, Bruce A. Work, Frankfort.

* * *

DAVIESS-MARTIN COUNTY MEDICAL SOCIETY officers for 1938 are:

President, C. P. Fox, Washington.
Vice-president, D. H. Swan, Plainville.
Secretary-treasurer, A. G. Blazey, Washington.

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY held a meeting in Lawrenceburg, January sixth. Drs. J. N. Christian and J. A. Schaal, of Cincinnati, discussed "Tuberculosis" illustrating their talk with slides.

* * *

DE KALB COUNTY MEDICAL SOCIETY held a meeting in the Auburn Hotel, December sixteenth. Dr. William Symons discussed newer development in treatment of eye diseases. The talk was illustrated with motion pictures.

President, Harold Nugen, Auburn.
Vice-president, D. M. Hines, Auburn.
Secretary-treasurer, John Showalter, Waterloo.

* * *

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Stanley Gordon, Connersville.
Vice-president, W. A. Kemp, Connersville.
Secretary-treasurer, R. H. Elliott, Connersville.

* * *

FLOYD COUNTY MEDICAL SOCIETY members met at New Albany, January fourteenth, to hear Dr. A. W. Homberger, of Louisville, who talked on "Vitamins." Attendance numbered twenty-one.

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met at the Chamber of Commerce in Fort Wayne, January fourth, to hear Dr. John T. Short talk on "Cancer of the Bladder." Attendance numbered forty-seven. Five new members, all of Fort Wayne, are Perry Wilson Bailey, Lawrence W. Mueller, E. S. Zweig, Robert E. Holsinger and Hanes M. Fowler.

At the December twenty-first meeting, Mr. Paul Barret, of Findlay, Ohio, personnel director of the Ohio Oil Company, talked on "The Perils of Privilege." This was a Christmas party for members and wives, and there was an attendance of 136.

* * *

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY met at Veedersburg, January sixth, with nineteen present. Dr. Howard B. Mettel, Miss MacDougal and Miss Ruth Smith, of the Indiana State Board of Health, Bureau of Maternal and Child Health, supplied the program.

* * *

GIBSON COUNTY MEDICAL SOCIETY members held a meeting at the Emerson Hotel in Princeton, January tenth. Dr. A. F. Clements, of Evansville, talked on "Constitutional Conditions Affecting the Eye, Ear, Nose and Throat." Number present was twenty-five.

* * *

GREENE COUNTY MEDICAL SOCIETY members met December 16 and elected the following officers for 1938:

President, C. C. Hamilton, Linton.
Vice-president, W. F. Craft, Linton.
Secretary-treasurer, F. A. Bailey, Linton.

* * *

HENRY COUNTY MEDICAL SOCIETY met at Lewisville, December thirtieth. Dr. C. P. Emerson, of Indianapolis, talked on "The Far Eastern Situation." Twenty-two members and guests were present. Officers were elected as follows:

President, George Wiggins, Newcastle.
Vice-president, James G. Bledsoe, Newcastle.
Secretary-treasurer, W. S. Robertson, Spiceland.

* * *

HOWARD COUNTY MEDICAL SOCIETY members met in Indianapolis at the Columbia Club, December sixteenth, for the annual business meeting and ladies' night program. Officers elected are:

President, D. A. Morrison, Kokomo.
Vice-president, W. J. Marshall, Kokomo.
Secretary-treasurer, D. W. Paris, Kokomo.

* * *

JEFFERSON COUNTY MEDICAL SOCIETY officers for 1938 have been elected as follows:

President, W. A. Shuck, Madison.
Vice-president, N. A. Kremer, Madison.
Secretary-treasurer, O. A. Turner, Madison.

* * *

KNOX COUNTY MEDICAL SOCIETY held a meeting at the Knox County Tuberculosis Hospital in Vincennes, January eleventh. Dr. J. R. Yung, of Terre Haute, presented a paper on "Exophthalmic Goiter, Symptoms and Diagnosis." Attendance numbered twenty. Knox county officers for 1938 are:

President, R. B. Cochran, Vincennes.
Vice-president, R. M. Anderson, Vincennes.
Secretary-treasurer, J. F. Reilly, Vincennes.

* * *

KOSCIUSKO COUNTY MEDICAL SOCIETY held a meeting at Warsaw, January eleventh. Dr. C. C. Dubois, of Warsaw, was the principal speaker, his subject being "Feeding and Care of Premature Infants." Attendance numbered fourteen. Dr. Dubois made a final report upon a case that he presented before the Society in 1915.

Officers of the Kosciusko County Medical Society for 1938 are:

President, G. H. Schlemmer, Warsaw.
Vice-president, J. L. Hillery, Milford.
Secretary-treasurer, Max Garber, Warsaw.

* * *

LAWRENCE COUNTY MEDICAL SOCIETY members met at Bedford, December twenty-second, with twenty-two in attendance. Dr. Schmidt, of the Lederle Laboratories, talked on "Pneumonia." Officers for 1938 were elected as follows:

President, J. R. Hamilton, Mitchell.
Vice-president, John S. Woolery, Bedford.
Secretary-treasurer, C. B. Emery, Bedford.

* * *

MADISON COUNTY MEDICAL SOCIETY elected officers for 1938 at a meeting held in St. John's hospital in Anderson, December twentieth. Officers are:

President, D. W. Quickel, Anderson.
Vice-president, W. M. Miley, Anderson.
Secretary-treasurer, M. A. Austin, Anderson.

* * *

MARSHALL COUNTY MEDICAL SOCIETY met at Plymouth, January fifth, for a luncheon meeting. Dr. Ernest Dietl, of South Bend, presented a paper on "Treatment of the Common Cold." Attendance numbered sixteen.

* * *

MIAMI COUNTY MEDICAL SOCIETY members elected for 1938 the following officers:

President, C. R. Herd, Peru.
Vice-president, H. E. Line, Chili.
Secretary-treasurer, E. H. Andrews, Peru.

* * *

MONROE COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Dillon Geiger, Bloomington.
Vice-president, R. C. Austin, Ellettsville.
Secretary-treasurer, Hugh Ramsey, Bloomington.

* * *

MUNCIE ACADEMY OF MEDICINE met at the Hotel Roberts in Muncie, January eleventh for a dinner meeting. The speaker was Dr. M. G. Draper, of Fort Wayne, whose subject was "Some of the Aspects of Tuberculosis in General Practice."

* * *

ORANGE COUNTY MEDICAL SOCIETY members have elected the following officers for 1938:

President, J. R. Dillinger, French Lick.
Vice-president, C. E. Boyd, West Baden.
Secretary-treasurer, George Dillinger, French Lick.

* * *

PORTER COUNTY MEDICAL SOCIETY met at Valparaiso, December twenty-eighth. Dr. F. H. Falls, of Chicago, was the principal speaker, his subject being "The Management of Eclamptogenic Toxemia." A film entitled "Dark Field Diagnosis of Primary Syphilis" was shown. Attendance numbered fourteen.

Officers of the Porter County Society for 1938 are:
President, Philip Corboy, Valparaiso.
Vice-president, J. W. Dale, Chesterton.
Secretary-treasurer, C. M. Davis, Valparaiso.

RANDOLPH COUNTY MEDICAL SOCIETY members held their annual meeting and banquet in Winchester, December thirteenth. Officers for 1938 were elected as follows:

President, O. E. Current, Farmland.
Vice-president, Leroy Chambers, Union City.
Secretary-treasurer, A. M. Brenner, Winchester.

* * *

RIPLEY COUNTY MEDICAL SOCIETY officers for 1938 are:

President, R. Lee Smith, Osgood.
Secretary-treasurer, George S. Row, Osgood.

* * *

SHELBY COUNTY MEDICAL SOCIETY members met at Shelbyville, January fifth. Dr. E. V. Hahn, of Indianapolis, talked on "Surgery of the Nervous System." Attendance numbered twenty.

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY members attended a meeting at the Jefferson Plaza in South Bend, January eleventh, when committees for 1938 were announced. This was a routine business and social meeting, with fifty-three in attendance. Moving pictures of Notre Dame football games were shown.

* * *

Officers of the St. Joseph County Medical Society for 1938 are:

President, P. J. Birmingham, South Bend.
Vice-president, M. J. Thornton, South Bend.
Secretary-treasurer, J. V. Cassady, South Bend.
Asst. secretary-treasurer, C. M. Sennett, South Bend.

* * *

STARKE COUNTY MEDICAL SOCIETY officers for 1938 are:

President, A. Fisher, North Judson.
Vice-president, J. L. DeNaut, Hamlet.
Secretary-treasurer, J. F. DeNaut, Knox.

* * *

SULLIVAN COUNTY MEDICAL SOCIETY members held a meeting at the Mary Sherman Hospital in Sullivan, January fifth. Dr. A. M. Mitchell of Terre Haute talked on "Medical Economics." Attendance numbered sixteen.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at the State Soldiers' Home and St. Elizabeth Hospital in Lafayette, January eleventh. Dr. J. O. Ritchey, of Indianapolis, talked on "Cardio-Renal Disturbances." Fifty were present at the clinic in the afternoon; sixty were present at the meeting in the evening.

* * *

VANDERBURGH COUNTY MEDICAL SOCIETY met in Evansville, January eleventh. Dr. Howard Stellner presented a paper on "Juvenile Paresis," Dr. D. C. Cameron talked on "Paroxysmal Hemoglobinemia," Dr. J. J. Casia talked on "Treatment of Pneumonia with Serum," and Dr. W. C. Plumber discussed "Undulant and Associated Fevers." Attendance numbered fifty-three. This was a luncheon meeting held at the Marine Hospital.

Correction: In the December 1937 JOURNAL, page 674, under the report of the Carroll County Medical Society meeting, the speaker is mentioned as "Dr. John W. Graves, Indianapolis dentist ." and this should have been "John W. Graves, M.D., of Indianapolis," for Dr. Graves is an Indianapolis physician.

Books

LOVE AND HAPPINESS. Intimate Problems of the Modern Woman. With a prefatory note by Dr. Logan Clendenning. Author anonymous. 232 pages. Cloth. Price \$2.00. Alfred A. Knopf, New York, 1938.

* * *

SURGICAL DISEASES OF THE MOUTH AND JAW. By Earl C. Padgett, B.S., M.D., F.A.C.S., associate professor of clinical surgery, University of Kansas School of Medicine, Kansas City; associate professor of oral surgery, Kansas City Western Dental College. 807 pages with 334 illustrations. Cloth. Price \$10.00. W. B. Saunders Company, Philadelphia and London, 1938.

* * *

MACLEOD'S PHYSIOLOGY IN MODERN MEDICINE. Edited by Philip Bard, professor of physiology, Johns Hopkins University School of Medicine; with the collaboration of Henry C. Bazett, George R. Cowgill, Harry Eagle, Chalmers L. Gemmill, Magnus I. Gregersen, Roy G. Hoskins, J. M. D. Olmsted, and Carl F. Schmidt. Eighth edition, 1,051 pages. Illustrated. Cloth. Price \$8.50. The C. V. Mosby Company, St. Louis, 1938.

* * *

OPERATIVE GYNECOLOGY. By Harry Sturgeon Crossen, M.D., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; and Robert James Crossen, M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine. Fifth edition, entirely revised and reset. 1076 pages with 1264 illustrations. Cloth. Price, \$12.50. C. V. Mosby Company, St. Louis, 1938.

* * *

THE PHYSICIAN'S BUSINESS. Practical and Economic Aspects of Medicine. By George D. Wolf, M.D., Attending Otolaryngologist, Sydenham Hospital, New York City. Foreword by Harold Rypins, A.B., M.D., F.A.C.P. 384 pages with 57 illustrations. Cloth. Price \$5.00. J. B. Lippincott Company, Philadelphia, 1938.

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FEBRUARY 1

ABSTRACTS

CONTROL AND PREVENTION OF TRANSFUSION SYPHILIS:
RESULTS OF A STATISTICAL SURVEY AND SUGGESTIONS
FOR MORE ADEQUATE PROCEDURES FOR
DETECTION OF SYPHILIS IN ALL DONORS

The increase in the employment of blood transfusion in recent years is responsible for the growing interest in problems connected with adequate protection of the recipient against infection with the donor's blood. In response to inquiries in several New York hospitals CHARLES R. REIN, FRED WISE and ALFRED R. CUKERBAUM, New York, (*Journal A.M.A.*, Jan. 1, 1938), have been informed that the number of transfusions has doubled during the past three years. This is due partly to simplification of the technic, easier performance of the operation and increase in hospital facilities, and partly also to the added protection afforded the patient by a more careful selection of donors and the safeguards rendered by the more sensitive serologic tests for syphilis. The most adequate serologic control of syphilis can best be accomplished by testing the donor's blood immediately prior to every transfusion. Lulled in a false security by the negative results of the relatively insensitive tests made at intervals varying from one month to six months, doctors might unknowingly utilize donors who had contracted syphilis. Furthermore, donors with a negative reaction to a serologic test on a previous examination have ample opportunity to acquire transmissible syphilis during the permitted time interval (from one to six months). This danger can easily be avoided. The precautions and safeguards ordinarily employed to prevent transmission of syphilis by transfused blood have not kept pace with the many improvements and refinements in the technic of transfusion. The authors suggest the following procedure, which can be done in thirty minutes immediately prior to all transfusions: (1) establish the blood group of all volunteer donors and regroup all professional donors, (2) determine the suitability of the donor's blood for the recipient by cross-matching, (3) detect the presence of syphilis serologically by means of the very sensitive and specific Kline diagnostic and exclusion flocculation tests and (4) detect any clinical evidence of syphilis by means of an adequate physical examination. The responsibility of preventing transfusion syphilis rests with the physicians of hospitals and other institutions, both public and private, dedicated to the care of the sick. The control of donors under municipal supervision should be rigidly enforced.

TRYPARSAMIDE THERAPY OF NEUROSYPHILIS AND
ATROPHY OF THE OPTIC NERVE

Of the entire group of 155 patients, LEO L. MAYER, Chicago (*Journal A.M.A.*, Nov. 27, 1937), observed fifty-four from an ocular point of view for at least five years and a few as long as ten years. In only two eyes, or 1 per cent, did blindness ensue, while four eyes lost visual field to a degree. It is not his purpose to argue whether these impairments were due to tryparsamide, to the neurosyphilis or to both. However, it must be admitted that the patients were poor risks for any kind of treatment. In view of the fact that visual acuity and visual fields were decidedly improved in so many instances, it would seem fair to state that tryparsamide under proper control is less dangerous than at first considered, even if optic atrophy has already become apparent. Moore's statement that "tryparsamide is absolutely contraindicated in the treatment of syphilitic optic atrophies," Stokes' contention that tryparsamide is contraindicated "when disease of the optic nerve is present (not the vascular mechanism)" and the statement of Bluemel and Greig that tryparsamide is "a form of therapeutic dyna-

Continued on page xxiv

PROFESSIONAL PROTECTION

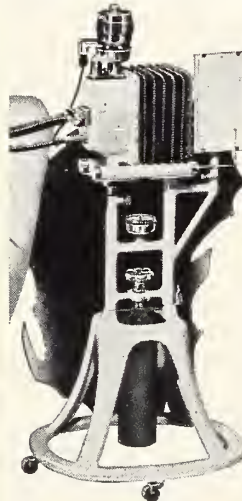


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ABSTRACTS

Continued from page xxiii

mite, notable chiefly for its dangers," do not agree with the author's experience. On the other hand, many reports agree with his results, indicating that "the percentage of danger from tryparsamide is no greater than that from some other preparations, providing the proper precautions are used," and that "the proved therapeutic value of tryparsamide, in a disease which is 'a medical emergency' justifies the slight risk." It is evident that a certain small number of patients with syphilis of the central nervous system have involvement of the optic tracts which may lead to blindness even without specific treatment and that an even smaller number of such patients when given tryparsamide may have subjective or objective signs and symptoms of injury to the optic tracts. Whether this minimal degree of danger is due to a direct toxic effect of the drug on the retina or optic nerves, to a particular sensitivity of the patient to the drug, to the toxic effects of the disease on the optic nerve, to arterial spasm caused by the drug or the disease or to the noxious influence of the treatment for syphilis during a period of low blood pressure, as hypothesized by Lauber, the low incidence of damage fully justifies the use of tryparsamide with proper observation.

DIAGNOSIS OF GONOCOCCIC INFECTION IN THE MALE: EVALUATION OF LABORATORY METHODS

The data that CHARLES M. CARPENTER, Rochester, N. Y. (*Journal A.M.A.*, Oct. 30, 1937), presents show the comparative value of the complement fixation test, the cultural method and the smear method for the diagnosis of gonococcal infection in the male. The complement fixation test gave a positive reaction in 87 per cent of ninety-two cases presenting a history and symptoms of the disease. Its true value, however, becomes greatly diminished in the light of finding 71 per cent positive reactions in a group of twenty-eight patients with neither a history, symptoms nor bacteriologic evidence of the disease. In a few instances false positive tests have occurred in patients with meningococcal infection. Likewise, the use of gonococcus vaccines, or those incorporating other gram-negative cocci, seriously interferes with the interpretation of a positive test. Further studies on gonococcus antigens are necessary to improve the specificity of the complement fixation test. The superiority of the culture method to the smear method, and especially to the complement fixation test, is obvious in that the diagnosis of 12 per cent more positive cases by culture than by smears is significant. In females, however, approximately twice as many positive diagnoses are made by cultures as by smears. The cultural method gives no false positive diagnoses and, furthermore, is a reliable test for cure. Its availability is somewhat limited to hospitals and venereal disease clinics where well equipped laboratories are located, so that specimens can be cultured within six or eight hours after collection. A few city health departments have introduced the cultural method, and it will soon be possible to judge the value of this new diagnostic procedure under routine conditions. Neither the cultural method nor the smear method should be used alone, but as supplementary procedures. Although more positive diagnoses are obtained by the cultural method, smears occasionally reveal typical gonococci, which for unknown reasons fail to grow.

ARTIFICIALLY INDUCED FEVER FOR TREATMENT OF GONOCOCCIC INFECTIONS IN THE MALE

In an attempt to evaluate correctly fever treatment of gonococcal infections in 105 male patients STAFFORD L. WARREN, WINFIELD W. SCOTT and CHARLES M. CARPENTER, Rochester, N. Y. (*Journal A.M.A.*, Oct. 30, 1937), specified rather exacting requirements. In only sixty-four

Continued on page xxvi

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ABSTRACTS

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cases was clinical evidence of the disease substantiated by a positive smear or culture within twenty-four hours of treatment. Failure of such substantiation resulted in the elimination of forty-one cases from the series, although satisfactory clinical results were obtained. Every case reported as cured was observed for many weeks, and in most instances several months after treatment. Many of the patients have resumed marital relations without evidence of recurrence or infection in the partner. The decision to base the duration of fever treatment, whenever possible, on the thermal death time of the individual's strain of gonococcus was made when a high percentage of failures occurred after either one or a series of short sessions of fever was administered. Repeated treatment of a duration of five hours proved less economical in certain cases, and not infrequently the patients refused to continue the therapy after two or more failures. Fever therapy is indicated in those cases in which other types of therapy have proved to be of no value. It may well be considered in cases that fail to respond to the usual general and local therapeutic measures. Fever has proved to be a valuable asset in the treatment of the various complications resulting from gonococcal infections. Artificially induced fever should be considered in the treatment of patients who refuse to cooperate while under local therapy and thereby not only prolong their own infection but continue to spread the disease. In married people, in whom the welfare of the home and the prevention of domestic complications are dependent on a rapid cure, fever is frequently indicated. The physician should be certain in each case that the use of fever therapy is warranted and that the patient is qualified physically for the treatment. This statement is prompted by the fact that one of the patients suffering from an acute anterior urethritis died after a twenty-four-hour fever treatment. Cures resulted in seven of the thirty-four cases of gonococcal infections in which either a single session of fever or repeated sessions at 106.7 F. shorter than the thermal death time were given. They were usually of five hours' duration. In thirty-one cases of gonococcal infection in which the patients received treatment equivalent to or greater than the thermal death twenty-five, or 81 per cent, were cured by a single session of fever at 106.7 F.

MEDICAL PATENTS

MORRIS FISHBEIN, Chicago (*Journal A.M.A.*, Nov. 6, 1937), contends that living in the machine age, the development of specialization in medical practice, the incorporation of great industries for the exploitation of discoveries made in the laboratories and similar factors emphasize the need for some revision in the medical point of view concerning medical patents. He still concurs with his statement made in 1933, in an editorial on the subject of medical patents: "Conceivably the best interest would be served if some central body might be developed, wholly altruistic in character, capable of administering medical patents for the benefit of the

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public, and assuring a reasonable remuneration to the investigator, the devotion of much of the profit to research, and adequate return to manufacturers willing to develop quantity production and distribution in an ethical manner. Such a central body might also set up requirements for adequate clinical research in connection with the development of new products so that a premature launching of unestablished products on the medical profession or on the public could be avoided." It has seemed to him that the American Medical Association with its prestige, its central organization and its available funds might well stimulate the development of a corporation, not for profit, for the administration of patents in the medical and health fields. To this corporation inventors might assign the patents taken out by them with the understanding that the corporation would administer the patents within the limitations suggested and that the expenses of administration with suitable royalties to investigators, universities, research institutions or other bodies might be derived from the income available through licensing of well established firms to manufacture products under the patents. The confusion of plans in the various universities, the vicious and sometimes malicious criticism of discoverers and of universities, the legal difficulties in which the universities sometimes find themselves and the basic principle enunciated in the Principles of Medical Ethics all seem to point toward the necessity of some unbiased body to assume responsibility and control in this field.

DIFFICULTIES IN THE USE OF PROTAMINE ZINC INSULIN

The advantages of protamine zinc insulin are so marked that one is loath to lay undue emphasis on difficulties in its use which have been great enough to lead a few patients to return to regular insulin. ELLIOTT P. JOSLIN, Boston (*Journal A. M. A.*, Jan. 8, 1938), has encountered thirty-eight of these and describes them, because in general such a return was unnecessary. This is plainly evident because already eight of the thirty-eight have resumed protamine zinc insulin. The temporary omission of protamine zinc insulin was due in five cases to lack of knowledge of its use on the part of the patient, which resulted in reactions and in one case to lack of confidence in it because the preliminary period of instruction had been too short. Another patient gave it up because of a projective trip, quite rightly believing that on a journey long acquaintance with regular insulin would make its employment safer than protamine zinc insulin, with which she had slight experience. The final patient of this group had simply been given protamine zinc insulin in a series of test experiments for which he deliberately came into the hospital. Experience in the treatment of patients with protamine insulin or, as now employed, protamine zinc insulin certainly does help in transferring patients on regular insulin to protamine zinc insulin. The type of reaction that the protamine zinc insulin patient endures is distinctly uncomfortable. The headache lasts a long time and is not promptly relieved with carbohydrate. The nausea may be very annoying. There are other reasons than protamine zinc insulin, however, for headache and for nausea and these must be sought before laying the blame on protamine zinc insulin. A hospital stay is not always necessary for a diabetic patient who is to use protamine zinc insulin, but a hospital stay is essential if one is to attempt to trade a patient who has lived for years successfully on regular insulin over to the combined regular plus protamine zinc insulin. These patients simply must see others going through the process so as to learn the mistakes that can occur. Patience, time and the will on the part of both the patient and the physician to secure the full benefit which protamine zinc insulin can confer will surmount any temporary difficulties.

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PNEUMONIA AND RESPIRATORY DISEASE FROM THE PUBLIC HEALTH STANDPOINT*

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Indianapolis

Throughout the United States, respiratory disease and pneumonia are present in epidemic form during the winter months, and are present in endemic form throughout the entire year. The sacrifice of human life, severe complications and the economic loss continues to constitute a perplexing medical and public health problem which is of major importance to the medical profession as well as to the lay public.

The situation changes little from one year to the next with the exception of explosive outbreaks, such as the influenzal epidemic of 1918 when the entire nation suffered a devastating influenzal plague. Frequent surveys provide rather conclusively that about 80 per cent of the population have at least one attack of respiratory disease during the year and that out of the 80 per cent approximately 60 per cent suffer a visitation of a respiratory malady from two to five times annually.

When one considers the many complications which may develop from the so-called common cold, little is left to the imagination as to what occurs in morbidity and mortality. With a given number of deaths some form of respiratory disease will be the cause in the ratio of about one to fourteen throughout the registration area. If it were possible to estimate the effect of this group of diseases upon the cardiovascular system, and the role which they play in activating latent or arrested tuberculosis, the ratio would be in greater proportion.

Control measures have been difficult to exercise because of the many factors which enter into the problem, particularly the fact that the public has grown accustomed to expect the prevalence of respiratory disease during certain seasons of the year and to believe that there is little to be done. The average person with a common cold rarely con-

sults a physician but depends upon his own physical resistance and home remedies to carry him successfully through the attack. This tendency without question results each year in a large number of cases being seen by the physician too late for attaining the best results.

The public must be taught that all forms of respiratory disease ranging from the head cold to the more severe forms, accompanied by chills and fever, are serious maladies and from their incipient state should be under medical supervision. We as physicians may expect to see a continuation of the high morbidity and mortality from respiratory disease until such time as the medical profession shall assume the responsibility for enlightening the public relative to the best means of preventing the winter group of diseases.

It is generally conceded that physical resistance is the best protection from respiratory disease. One may debate that the cause of colds is a virus, an allergistic reaction, or that they are of bacteriological origin, which after all, until research determines the cause, matters very little.

One thing is certain; the human body many times during the life cycle successfully combats the invading infection and in the event that complications do not arise, restores the individual to a normal state of health. The battle, however, must be fought again and again for whatever may be the agent responsible for the acute respiratory disease, only temporary immunity results from cellular effort.

In outlining a program of prevention some assistance may be derived from the seasonal prevalence of respiratory infections for they thrive and are most widely disseminated during the winter months. This is indicative that environmental conditions such as an indoor existence, shorter days with the absence of sunshine, sudden changes in temperature and overcrowding are directly related to the problem.

Inasmuch as the entire population cannot migrate to a more healthful environment, if there be such, there is little left to do but to depend upon a physical resistance tuned to the highest point of efficiency in avoiding such troublesome infections.

* Presented before the Indianapolis Medical Society, February 1, 1938.

† Secretary, Indianapolis Board of Health.

Without question the physician, were he consulted, could give timely advice relative to a proper diet, for research has proved that there are many protective foods interspersed with a balanced diet which do increase one's resistance against respiratory disease. It may be accepted as an axiom that faulty elimination, a condition which is quite universal, has a marked tendency in predisposing to all types of infection. The emphasis on fluid intake, correct elimination, regular hours for sleep and rest and the development of a respiratory conscience on the part of the public would be valuable from a public health standpoint.

The above may seem somewhat like the A B C's of medicine, yet that the public is willing and gullible is proved by the enormous quantity of cold remedies and patent medicines which are sold, as well as the fertile field for a financial harvest which is reaped quite regularly through radio advertisement of nostrums and cold cures. Surely such competition can readily be driven to cover and the physician placed in the role of caring for the multitudes who are now hoodwinked by such unscientific procedure.

Why not a card in every doctor's office so that it may be seen by his clientele, with the inscription thereon: "Consult your family doctor about the prevention of colds and respiratory diseases." This surely is not unethical and would be a means of informing the public that the doctor is the proper one to consult about these infections.

At the present time, a large majority of the population consult the doctor only after all other measures have failed. Timely advice might be given relative to heating, ventilation, areation and humidity, all directly related to the winter health program. The doctor would also be offered the opportunity to emphasize the importance of bed rest along with the treatment when a cold is in its incipient state. He would assist in developing a comprehensive industrial health program among employers who insist that employees continue work when they are suffering from severe colds and respiratory infections. It is among this (industrial) group of our population that the incidence of respiratory infections is the highest. The physician would be given the opportunity to educate his clientele that alcohol, particularly whiskey, is not the ideal therapeutic agent to be used in the acute stage of respiratory disease. Every doctor has been called to treat a pneumonia case and found that the patient had been copiously dosed with whiskey in an attempt to break up a cold. The public should be informed that alcohol in acute respiratory diseases may aggravate rather than benefit, particularly when the individual is going about his daily routine. Whiskey may have its place in medicine but it should be judiciously prescribed and the old idea which prevails among the public that it is a specific for colds should be corrected.

Atmospheric pollution in larger municipalities is related to the winter disease problem. Coal

smoke, carbon monoxide from automobiles, and street dust are a group of irritants that unquestionably affect the mucosa of the entire respiratory tract and render these structures more susceptible to respiratory disease. Mankind during the present age would not think for a moment of consuming polluted water or contaminated milk, yet the air which is breathed by persons living in the soft coal burning belt of the larger municipalities is saturated at all times with deleterious substances. The profession certainly can express its opinion regarding such health hazards, just the same as it does relative to preventive measures in automobile accidents and fatalities.

There are many other phases in the preventive program of respiratory disease wherein the medical profession may render a valuable service to the public, such as manifesting an interest in school health, nutritional problems in the lower strata of society, industrial health, housing and speaking before lay groups and over the radio.

A comprehensive program having for its purpose the reduction of the group of acute respiratory disease will be reflected in the pneumonia mortality rate which stands third as a cause of death throughout the registration area. Approximately 110,000 pneumonia deaths occur annually which means that for every 100,000 of the country's population there are 100 deaths each year from pneumonia. This is a staggering list and is an ever present challenge to the profession to exercise all within their power in an attempt to check the devastation.

It was not until about five years ago that the profession had available any specific therapeutic agent for treating pneumonia. Previous to that time, expectant treatment with a prayer, the administration of oxygen and nursing care was the routine procedure. With the advent of pneumonia typing and the discovery of effective serums for certain types of pneumonia, a valuable method in the treatment and management of pneumonia cases was given to the profession.

In view of the wide distribution of the disease and the accompanying high mortality rate of pneumonia, every case should be typed. It has been estimated that approximately 175,000 cases of pneumonia which result in 38,000 deaths are caused by type 1 and 2. Reliable data is available to prove that serum administered within the first three days of the disease results in a forty per cent decrease in the mortality rate. Types 5, 7, and 8 are responsible annually for 100,000 cases with 21,000 deaths throughout the registration area.

Sera are now available for these types along with the recent addition of several others. As research continues, other effective serums will be added to the list. From surveys and observations, it is evident that typing is not being used to the extent that it should be used. This is probably due to the fact that adequate facilities as yet have

not been provided for typing although the technique is one which is not difficult. The time will eventually come when every doctor who possesses a microscope will be able to type the pneumococci quite as easily as he now does a microscopical examination for gonococci.

The most perplexing problem which confronts both the doctor and the patient is the present cost of the serum. Truly the majority of patients who have pneumonia are quite unable to afford an expenditure of \$100 or more for serum. It is regrettable that this adjunct for treating pneumonia has placed the malady in the group of aristocratic diseases. Until pneumonia serum is made available at a lesser cost or is added to the free antitoxin list, there will unquestionably be many cases of pneumonia which will not receive serum and will probably never be typed.

This situation will necessitate study as well as a coordinated effort on the part of physicians, boards of health, and pharmaceutical houses as to just how such a valuable therapeutic agent may be made available for pneumonia cases. The universal adoption of pneumonia typing by the profession, and a reduction in the cost of pneumonia serum would unquestionably be favorably reflected in the pneumonia mortality rate.

ABSTRACT

THE PNEUMONIA FILM, "A NEW DAY"

Sponsored by the United States Public Health Service, the Metropolitan Life Insurance Company has developed a motion picture, entitled "A New Day," (Current Comment, *Journal of the A.M.A.*, Feb. 12, 1938) which is now being shown by health departments and other agencies in many motion picture houses throughout the country. This picture promotes the cause of scientific medicine and teaches a few simple lessons regarding pneumonia. The film features Gilbert Emery, an actor who appeared to advantage in "The Magnificent Obsession." The plot is simple: the mother ill with pneumonia, the father calling the family doctor, the taking of a specimen for typing, the correct diagnosis of the disease, the personal care by the physician, and the administration of specific serum. With this simple plot, the film nevertheless has strong emotional appeal and teaches perfectly for the public the importance of getting the family doctor as soon as possible; for the doctor, the importance of being certain of the diagnosis, the type of the organism, and the accessibility of the serum. The film was shown for a week in New York in the Radio City Music Hall where it had an estimated audience of 121,000. More than 300 additional bookings have already been scheduled in New York City and, with the aid of the various health departments, the film will also be shown in other places throughout the country. It has been endorsed by the Pneumonia Commission of the United States Public Health Service, the New York State Pneumonia Committee, the council of the New York State Medical Society and the New Jersey State Medical Society. Obviously this film is a valuable accessory in education of the public about pneumonia and in the campaign against this disease.

PNEUMONIA FROM THE STANDPOINT OF THE LABORATORY MAN

WEMPLE DODDS, M.D.

Crawfordsville

A cursory examination of recent medical literature will convince the reader of the widespread interest in specific therapy of pneumococcic pneumonia. Although therapeutic sera have been advocated for several years for the treatment of pneumonias due to pneumococcus Types I and II, their use has not been widespread. The physician's natural reticence to administer intravenously the large doses of serum required undoubtedly has been a factor in preventing a greater popularity of the method. A factor probably of greater importance has been the lack of laboratory facilities for typing the pneumococcus with sufficient accuracy or speed to be of any aid to the physician or his patient. As a consequence, interest in the serotherapy of pneumococcic infections has lagged until recently when the literature has contained innumerable reports of the favorable use of highly purified specific sera. Extensive studies such as that sponsored by the Commonwealth Fund in Massachusetts¹ and that under way now in the State of New York have stimulated several states to inaugurate active programs. This widespread enthusiasm has even permeated through to the lay press, so that the practitioner's patient is face to face, in a recent issue of a popular news magazine, with a photographic story of the manufacture of therapeutic serum, the details of its use, and the methods of typing the pneumococcus. It seems to the writer that this is premature, to say the least, since only a few type-specific therapeutic sera are now available commercially.

It is true that numerous reports appear of pneumonia due to almost every known species of bacteria. However, as stated editorially by the *Journal of the American Medical Association*,² at least 85 per cent of the cases occurring in the United States each year are caused by pneumococci, and types I, II, III, V, VII and VIII are the most common types and probably account for 85 per cent of the deaths due to pneumococci. The study of these types is, therefore, of paramount importance when consideration is taken of the fact that the therapeutic sera of most promise are included in these types. Since the results of the questionnaire postcard survey, conducted by the American Medical Association and reported in the same editorial, indicate that only 30 to 70 per cent of hospital laboratories recorded facilities for typing the pneumococcus, it is obvious that not enough clinical laboratories have appreciated the grave responsibility placed on them.

Because of the above considerations the writer does not hesitate to confine his remarks entirely

1 Hefron, R. and Robinson, E.S., *The Commonwealth, Mass.*, 1937, 24.

2 Editorial, *Pneumonia Mortality and Pneumococcus Typing Facilities, J.A.M.A.*, 109:1910, 1937.

to the bacteriological diagnosis of pneumonias of pneumococcal etiology.

While the monumental research of Georgia M. Cooper,³ in separating twenty-nine types of serologically distinct pneumococci hitherto included in Type IV, apparently added to the complexity of the problem, the popularization by Sabin⁴ of the Neufeld reaction⁵ for rapid typing of the pneumococcus directly from the sputum has given further impetus to the study of pneumococcal infections.

To any one who has had experience with the older methods of typing the pneumococcus by the intraperitoneal injection of sputum into mice, the Neufeld method is a most important and welcome advance. The method is very accurate when one has obtained sufficient experience with it.

Bullowa⁶ states that the type responsible for the disease is obtained "in over 93 per cent of cases in which confirmatory evidence was obtained by blood cultures, lung suction or metastatic foci." This is a very important point because of the statement sometimes made that one can not be certain that the type of pneumococcus found in the sputum is the one responsible for the pneumonia. In this paper Bullowa reports his results in using the Sabin technique⁷ and also the Neufeld technique⁵ and he states that 76 per cent of positive results were obtained by the Neufeld method. However, Dr. William H. Park, in discussing this paper, states that in a series of 106 cases the Neufeld reaction gave correct results in 96 per cent of cases. It seems generally agreed by bacteriologists that when pneumococci are found in the sputum it is possible to type them correctly in a very high percentage of cases. It seems clear that the method requires considerable skill and experience for good results.

The success of any method of typing depends in great measure on the specimen of sputum submitted to the laboratory for examination. It is obvious that although the infecting pneumococci may sometimes be isolated in saliva, what is wanted by the laboratorian is lung mucus or exudate. It is often stated that there is no

cough or expectoration and therefore no sputum can be obtained. In our experience this has been most infrequent. If the patient is placed on his side with the affected side uppermost and coached to cough and clear his throat a suitable specimen can be obtained in almost every case. In the case of children or infants who cannot cooperate, the thick mucus can be removed from the throat by a swab, and in the extreme case when this fails the contents of the stomach removed by aspiration will contain the pneumococci.

The Neufeld reaction is observed by mixing a small particle of sputum with type specific rabbit serum under a cover slip or in a hanging-drop chamber and observing under the oil-immersion lens of the microscope. A positive reaction consists of a marked and almost immediate swelling or "Quellung" of the outer zone (capsule?) of the pneumococcus so that the capsule which under ordinary circumstances is very difficult to see now becomes very distinct. This outer zone assumes a "ground-glass appearance," so that its appearance under the microscope is most striking. Clearness of observation is enhanced somewhat by the addition of alkaline methylene blue to the mixture. A negative reaction consists of no change or "Quellung" in the outer zone of the pneumococci. Several manufacturers are marketing small inexpensive outfits consisting of capillary tubes containing the proper amount of serum and alkaline methylene blue and fitted with small rubber bulbs to express the serum from the capillary tubes. These are inexpensive and while not quite so cheap as when the serum is purchased in bulk, we have found them eminently satisfactory. In addition to capillary tubes containing the type specific serum there are also marketed tubes containing mixtures such as the following:

Mixture "A" containing Types I, II and VII.

Mixture "B" containing Types III, IV, V, VI and VIII.

Mixture "C" containing Types IX, XII, XIV, XV and XVII.

Mixture "D" containing Types X, XI, XIII, XX, XXII and XXIV.

Mixture "E" containing Types XVI, XVIII, XIX, XXI and XXVIII.

Mixture "F" containing Types XXIII, XXV, XXVII, XXIX, XXXI and XXXII.

When a positive reaction is obtained with one of these mixtures, the sputum is retested with each of the monovalent sera contained in the mixture. In this way considerable time and effort is saved, and it is often possible to type the pneumococcus within 30 minutes after the sputum is received.

At the present time our practice is to test the sputum only with the sera incorporated in Mixtures A, B and C since the only therapeutic sera we have been able to obtain are Types I, II, IV, V, VII, and VIII. Just recently we are informed that Type XIV is now available. Our plan is

3 Cooper, G., Rosenstein, C., Walter, A., and Peizer, L., The Further Separation of Types Among the Pneumococci Hitherto Included in Group IV and the Development of Therapeutic Antisera for these Types. *J. of Exp. Med.*, 55:531, 1932.

4 Sabin, A.B., Immediate Pneumococcus Typing Directly From Sputum By The Neufeld Reaction. *J.A.M.A.*, 100, 1584, 1933.

5 Neufeld, F., Ueber die Agglutination der Pneumokokken und Über die Theorien der Agglutination, *Ztschr. F. Hyg. u. Infektion skr.* 40:54, 1902.

6 Bullowa, J. G. M., Somers, M., and Turner, E. The Reliability of Sputum Typing and Its Relation to Serum Therapy. *J.A.M.A.*, 105:1512, 1935.

7 Sabin, A.B. The "Stained Slide" Microscopic Agglutination Test: Application to (1) Rapid Typing of Pneumococci; (2) Determination of Antibody, *Proc. Soc. Exper. Biol. and Med.* 26:492, 1929; The Microscopic Agglutination Test in Pneumonia, *J. Infect. Dis.* 46:469, 1930.

to add specific monovalent typing serum for each type as the therapeutic serum is made available.

The success that may be achieved by such a routine may be indicated by our experience in a small hospital laboratory during the past year. Of 53 sputum specimens from pneumonia patients we have been able to determine the specific types in 30 cases as follows:

Type I	-----	11 cases
Type II	-----	13 cases
Type III	-----	1 case
Type IV	-----	1 case
Type V	-----	2 cases
Type XVIII	-----	1 case
Type XIX	-----	1 case

It will be noted that one case each of Type XVIII and Type XIX are included because at the time we happened to have these two specific typing sera on hand. With the exception of these two cases and the cases with Type III and Type IV pneumococci, all of the patients were given specific serum, a total of 26 cases or slightly less than half of the total number typed. As stated above we are now confining our determinations to the specific types included in mixtures A, B and C. The remaining organisms we are classifying as "positive Neufeld reaction to mixtures D, E, and F," as the case may be and will continue this plan until the appropriate therapeutic sera become available.

A word of caution should be interjected against relying implicitly on a single sputum examination. It is possible that a pneumococcus may be typed from the oropharynx which is not the organism producing the lung disease and it is preferable, particularly when a type of organism is reported which does not belong in one of the common groups, to repeat the examination. Repetition of the examinations is particularly indicated when the clinical findings indicate a fresh extension into another lobe of the lung, in which case another type of pneumococcus may be the offending organism.

The importance of blood culture in pneumococcal infections has been emphasized repeatedly.⁸ Aside from its value in occasionally isolating the pneumococcus and subsequently typing from culture when it has been impossible to obtain it from the sputum, it seems clear from published reports that the prognosis in bacteremic cases is distinctly unfavorable. For this reason repeated blood cultures are indicated. It has also been advocated as a routine in the control of adequate serum dosage. So many variable factors determine "adequate dosage" that many writers have suggested this as a means of determining when sufficient dosage has been given.

The technique of blood culture in pneumococcal bacteremia is not difficult. The pneumococcus grows rather rapidly in artificial medium and it is often possible to obtain positive cultures in as short a time as 4 hours and certainly within 24 hours. We are using heart infusion broth.

TREATMENT OF EMPYEMA*

H. G. WEISS, M.D.
Evansville

Empyema is essentially an abscess and its treatment is that of an abscess.

In surgical treatment there is a long accepted dictum that all pus, wherever located, should be evacuated. In the evacuation of pus, good surgery demands that it be done with a minimum destruction of normal tissue, disturbance of normal function, and a minimum production of shock. Evacuation must be complete and drainage must continue until health is restored. It has for ages been generally accepted as a fact that the more mature or ripe an abscess becomes, the more its protective walls develop, and its contents turn into thick creamy yellow "laudable pus," the easier its evacuation becomes and less shock and reaction are produced. However, the longer the process of ripening, the more destruction there is of tissue and the more interference there is with the physiologic function of the part or organ, and the more protracted is the period of morbidity and convalescence. It is, therefore, good practice to open every abscess as soon as it can be done satisfactorily and safely, before the cavity becomes unnecessarily large and adjacent organs unnecessarily damaged.

In attempting to evacuate any abscess we should take into consideration the anatomy and physiology of the organ or organs in or near which the abscess is located. Before considering the evacuation of an abscess or pus from the pleural cavity, we will digress to rehearse a few facts relative to the anatomy and physiology of the chest and some of its contents. The chest is a conical cavity whose walls are made up of bones, cartilages, muscles, and membranes and whose base consists of a musculo-membranous floor. It possesses the ability of increasing its capacity by elevating and expanding its sides and depressing its dome-shaped floor. The principal functions of the chest are to furnish protection for the lungs and the organs of the mediastinum and to assist the lungs in the act of respiration. The lungs are covered by a delicate serous membrane named the pleura which is reflected over the organs of the mediastinum, the roots of the lungs, and the inner surface of the walls and floor of the chest cavity, forming a completely closed sac around each lung with a potential pleural cavity between its layers. During health this potential pleural cavity is completely obliterated by the elastic lungs being pushed against the inner side of the chest walls by atmospheric pressure through trachea and bronchi. At each inspiration, as the chest cavity increases in size, more air rushes into the lungs and increases their size so that they completely fill the chest cavity, and the visceral and parietal layers of the

⁸ Tilghman, R.C., and Finland, M. Clinical Significance of Bacteremia in Pneumococcal Pneumonia. *Arch. Int. Med.* 59:602, 1937.

* Presented before the Section on Surgery of the Indiana State Medical Association at the annual meeting held in French Lick, October 5, 1937.

pleurae are thus continuously kept in contact. When air or fluid is placed between the layers of the parietal and visceral pleura, the atmospheric pressure in the lung is overcome and a true pleural cavity is established. If an opening is made through the chest wall into the pleural cavity, air will enter and counteract the intrapulmonary air pressure. If this opening is sufficiently large and no adhesions between the layers of the pleura exist, collapse of the lung will take place. Respiration, we thus see, depends in the unadherent lung on the maintenance of a vacuum in the pleural space. If into each pleural cavity an opening were made whose combined capacity equalled that of the opening in the trachea, atmospheric pressure on the outside of the lungs and on the inside of the lungs would be equal. The lungs in this instance would collapse and respiration cease even though respiratory movements of the chest walls and diaphragm continued.

In an acute empyema very few if any pleural adhesions have taken place and if, during a thoracotomy to evacuate the pus, sufficient air is permitted to enter the pleural cavity, the lung will collapse and respiration in that lung will cease. Although each pleural cavity is independent of the other and the mediastinum forms a partition between them, this partition is not rigid and air in one pleural cavity will push the organs of the mediastinum slightly to the opposite side and in a measure decrease respiration in that lung. These conditions we find especially true in young children where pleural adhesions are slow in forming and the structures are elastic.

In treating soldiers in our camps during our late war, following the epidemics of influenza, streptococcus pneumonia, and empyema, in many hospitals early and extensive thoracotomies with rib resection were practiced with a high mortality. Delayed operation was then ordered with better results. At Camp McClellan where I had charge of an empyema ward under the direction of the late Dr. Alexis Moschowitz of New York, late operations with small intercostal incisions under local anaesthesia became the practice with no deaths in a large number of cases treated.

The treatment of empyema with surgeons of today differs widely. Some use large calibre needles for repeated aspirations as soon as pus is located; others prefer to do rib resection with open drainage after acute conditions have subsided, adhesions have formed, and resistance has been established. The first has the advantage of producing little shock and prevents pulmonary collapse and can, therefore, be done safely while the patient is acutely ill. It prevents a large accumulation of pus and often brings about a speedy recovery. The objection to this method is that aspiration generally has to be repeated, which with children especially is objectionable, and in a number of cases drainage is not complete, and later a resection with more adequate drainage is required.

Rib resection with free open drainage is no doubt the operation of choice in mature cases where adhesions have formed and masses of fibrin have been deposited, but it is not justifiable in early cases, in the acutely ill, and especially in young children.

Rib resection as a rule requires a general anesthetic. This with the surgical procedure occasions a degree of shock that cannot be disregarded in a patient who has just passed the crises of an acute illness such as pneumonia. With open drainage a certain amount of pulmonary collapse generally ensues, and in cases where there is still a marked consolidation of part of the lung it adds to the embarrassment of respiration and the gravity of the case.

After treating empyema by various methods in an average general practice for over thirty-five years in homes and hospitals, I have gradually adopted the closed method of treatment in all acute cases. During the past year, I have operated on sixteen such cases, most of them in the hospital, some in the home. Some were taken to the operating room where conveniences expedite the work while others who were too sick to be moved were operated in hospital beds. A number were nursing children acutely ill and one was a young adult with an extensive bilateral empyema and purulent peritonitis following a bilateral lobar pneumonia and pneumococcus peritonitis.

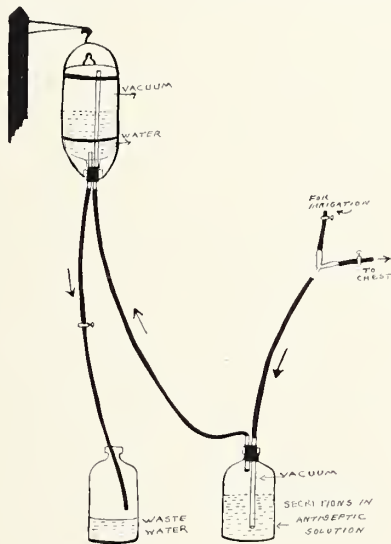
In this series of cases I have had the good fortune of not having any deaths and no secondary operations were required. The shortest time in which drainage was discontinued was four days and the longest ten days, the average being about one week. After the drainage tube was removed, plain aseptic gauze dressings were applied. The wounds required dressings from one to three weeks.

In treating empyema an early diagnosis should be sought before the accumulation of pus becomes extensive. Every suspected case should be subjected to careful physical examination and verified by x-ray plates and exploratory puncture. No thoracotomy should ever be done until free pus is found by the exploring needle. After a positive diagnosis of empyema has been established, the most dependent portion of the abscess is sought and incised. I favor incision in the posterior axillary line, because when the patient lies in bed in the usual position on his back, this becomes the most dependent practical portion and it is the line in which continuous drainage is most conveniently maintained.

THORACOTOMY

The operation of thoracotomy is usually done under a 1% novocain anesthesia preceded by a hypodermic of a safe dose of morphine. In children that cannot be controlled, a few drops of anaesthol or chloroform are given by inhalation. In opening the pleural cavity, an incision from 1½ to 2 inches long is made near the upper border of the rib. At this point we avoid injuring intercostal vessels and nerves, and hemostasis is seldom required.

The incision is made through skin, fascia, muscles, and pleura often with one sweep of the knife. The opening in the pleural cavity at the bottom of the wound is generally small. When free pus is seen to escape from the wound a closed hemostat is introduced, opened, and the wound enlarged to about one inch. A firm non-collapsible rubber drainage tube of $\frac{3}{4}$ -inch in diameter, the end of which has been grasped and flattened by a hemostat to conform to the shape of the wound, is thrust with the hemostat into the abscess cavity. The hemostat is now released and withdrawn. When the freely flowing pus assures the operator that the tube is in the pleural cavity for drainage, the hemostat is clasped across the tube closing it. A sharp curved cutting needle armed with a heavy dermal or silkworm suture is now



passed through skin, fascia, and muscles of one lip of the wound, through the wall of the tube, then through the opposite lip of the wound and tied. This suture closes the wound around the tube on one side and prevents the drainage tube from being pulled out or pushed too far into the pleural cavity. Another similar suture is now introduced through the other end of the wound and tied and the cut tissues approximated.

Flexible collodion is now poured over the wound, cotton fibres are placed over this and around the tube, more collodion and more cotton are added until the wound is completely sealed about the tube. Two divided strips of gauze are placed about the tube. The tube is now fastened to the chest wall by means of adhesive plaster strips. The whole dressing is then secured by means of a divided binder encircling the chest. This dressing seldom needs changing until our drainage is complete, which is quite an item especially when dealing with children, and the bed remains clean.

After the patient has been returned to bed, the drainage tube is connected with a cheaply constructed hydraulic vacuum apparatus by means of

a piece of glass tubing. The hemostat on the drainage tube is now released and a portion of the pus permitted to escape from the chest. Whenever cough, pain, or distress in any form develops, drainage is immediately stopped by means of a clamp on the suction tube. This clamp is reopened for a short period every one to two hours until the cavity has been emptied. Thereafter it is opened from five to fifteen minutes every three to four hours with just sufficient suction to prevent the tube from becoming clogged with pus. Whenever pain is produced or the pleural secretion shows pink, suction is again immediately stopped. Care must be exercised by the attendant lest suction be too great or too long continued, producing capillary hemorrhages in the pleura and opening new avenues of infection. When the pus becomes scant, thick, and fibrinous, a glass Y is substituted for the glass connection and the cavity gently irrigated with warm Dakin's solution for a few days. When drainage ceases, the tube and dressings are removed and plain aseptic dressings are applied. The suction apparatus used, shown in the drawing, is self explanatory. It is easily constructed and operated and the material used in its construction can be secured for from one to two dollars. It prevents the drainage tube from becoming clogged with pus and provides perfect drainage. It maintains a vacuum in the pleural cavity and thus assists in expansion of the lung.

SUMMARY

With the closed operation:

1. Drainage can safely be instituted earlier.
2. Patients show less shock or post operative reaction and collapse of the lung is prevented.
3. The procedure is simple and can easily be done at the bedside or in the home.
4. Many troublesome dressings are avoided.
5. There is less postoperative deformity.
6. The period of convalescence is shorter.

DISCUSSION

FRANK MAURER, M.D. (Brazil): Dr. Weiss has given a very good description of this procedure. The thing that impresses me most is the shortness of the drainage period. With the old methods it used to take my cases about a month to drain out. Perhaps we have done something wrong to make them last that long, but the fact that his cases clear up within a period of four days makes his method superior.

There are two or three questions I want to ask. With the emphyemas I have had, I allowed them out of bed as soon as possible. If their temperature will go down, I get them up and move them around. In order to push the lung out against the chest wall and to facilitate nursing care, I employ some pressure apparatus to blow against to see if they cannot get the lung to expand more. It is surprising to see the lack of ability on the part of these people to get any pressure at all, even with a toy balloon. For

some reason or other these patients do not seem to be able to get any pressure at all. I do not know whether Dr. Weiss is using anything of that sort or not.

Another thing, when the tube is put in before adhesions are formed, in a patient showing a degree of collapse at that time, I wonder if this negative pressure does not have to be applied rather rapidly to prevent the lung from collapsing and pushing to the opposite side? On the whole, this is not true where the patient is seen early in the disease and it seems to me that this is a new method which I have not used.

IRVIN ABELL, M.D. (Louisville, Ky.): I listened with a great deal of pleasure to the paper that has just been presented. As far as the general tenor of it is concerned, I am fully in accord with it. Our work is limited to general surgery, consequently we see empyema only as such cases are referred to us by the general practitioner. Under such circumstances they represent various stages as they come under our observation, some quite early when the fluid is still thin; most of them when it is frankly pus; some later when the amount of the purulent collection in the pleura has caused such compression of the lung as to interfere with its expansion, and finally some in which there has been an opening established in the bronchial tract.

I agree with the essayist that in streptococcal infections where the purulent fluid is thin and the patient markedly depressed, aspiration is the treatment of choice. One objection to repeated aspirations is the possibility of infection of the chest wall leading to rather widespread cellulitis; this we have observed on several occasions. When the purulent fluid has become thick it has been our practice to treat it by rib resection, placing the opening at the most dependent portion of the cavity. In children who are quite ill, and in whom the fluid collection is thin, we have at times under local anesthesia introduced a trocar and canula between the ribs; after withdrawing the trocar a small catheter is introduced through the canula and the latter withdrawn, the catheter being anchored in place with adhesive plaster. This is a comparatively simple procedure and has been of distinct benefit in caring for this type of cases, some few of which have made a recovery without further resection. With the exception of quite young children, all empyema operations in our practice are done under local anesthesia; in children sufficient chloroform is given to induce the first stage of anesthesia, after which novocaine is employed for its completion. In empyema of recent formation there is usually no difficulty in securing expansion of the lung after adequate drainage is established at the most dependent portion of the cavity; when, however, empyema has existed for a long period of time, the compressed lung becomes fixed by adhesions and does not readily expand. We believe in such cases

that various respiratory exercises, such as blowing into a bottle, are definitely helpful. When sufficient time has elapsed to determine that expansion of the lung will not occur, it becomes necessary to employ some method of thoracoplasty for the purpose of collapsing the chest wall.

Recently my associate, Dr. Henry, made a study of 71 consecutive cases of empyema operations done by us; the mortality was 7 percent and occurred chiefly in patients in whom the empyema fluid was thin. From our own experience we feel that open operation of rib resection under local anesthetic is the most satisfactory procedure in all cases other than those presenting thin fluid or in whom there is pneumonic process in the opposite lung.

DR. WEISS (closing): It was stated in the paper that this method is not applicable to an old empyema. We all realize that it would not work. It does enable you to operate on cases early, before the lung is compressed and before you have a large pleural cavity. In children it works so well that they never miss a feeding. I have done it many times in the home. In many cases the child takes nourishment within an hour after the operation is complete. With that apparatus the mother picks up the child and nurses it with the apparatus intact. If it is used early there is no need of the lung becoming collapsed. We have very little pleural cavity. There is no occasion for using a blowing apparatus to again dilate the lung because the lung has never become collapsed. If the opening was made small enough and the drainage tube large enough, very little air need enter. With collodion or cotton sealed around the tube, it can be made air-tight. If a little air does enter, suction will remove it. On the whole, it has proved very satisfactory in the cases I have had.

ABSTRACT

ORIGIN OF HEART SOUNDS AND THEIR VARIATIONS IN MYOCARDIAL DISEASE

A study of their records of human heart sounds and those reported by Lewis, Wolferth and Margolies, and Houssay has strengthened the conviction of J. K. Lewis and William Dock, San Francisco (*Journal A.M.A.*, Jan. 22, 1938), that the three normal heart sounds are due to sudden tensing of valve leaflets, with no appreciable muscular element. The intensity of the first sound depends chiefly on its relation to auricular emptying, passive or active. When systole interrupts rapid ventricular inflow the first sound is loud regardless of all other factors; if systole occurs after such a phase has closed the sound is faint, even though the contraction is vigorous and the myocardium normal. The gallop sounds are accentuations or variations of sounds present in many normal persons, but while the normal sounds are common in young adults they are rare in normal persons at the age when myocardial failure is most frequent. Presystolic gallop and weak first sound are caused either by altered conduction of the activation wave in the heart or by myocardial failure. The electrocardiogram is therefore valuable as an aid in interpreting these signs of disturbed cardiac function.

DIAGNOSTIC METHODS OF TUBERCULOSIS FOR THE PRACTITIONER*

D. M. SHORT, M.D.
Evansville

Last year (1936) the practitioners of the State of Indiana affixed their signatures to 1694 death certificates with the diagnosis of *tuberculosis*. Excluding influenza, this is twice as many deaths as were caused by all the combined preventable and infectious diseases.

A half dozen cases of typhoid in a community would fairly precipitate a deluge of epidemiologists and public health officials in an effort to locate the source of infection and effect its immediate control. During the year 1935 the deaths from tuberculosis were about thirty times as numerous as from typhoid.

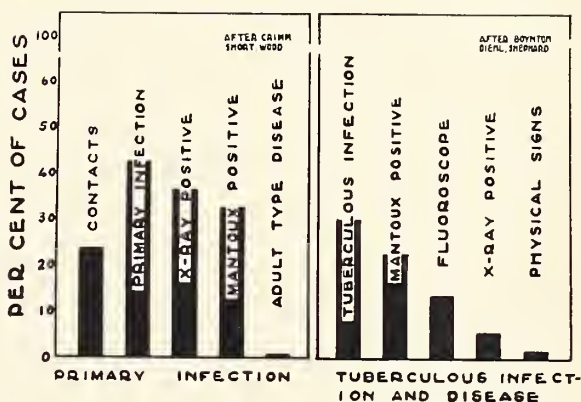
Scarcely a single physician is without personal knowledge of a half dozen or more cases of open tuberculosis in his community or his own practice. Notwithstanding these apparent and pertinent facts, we have a lamentable degree of complacency regarding this disease. The community health problem provoked by its presence in our midst is a real challenge to the medical profession.

There is no disease that is a major cause of death today for which the medical profession has as many effective therapeutic means as for tuberculosis. Upon the early diagnosis of tuberculosis depends the degree of success in treatment. The practitioner, not the specialist, is the first to see the incipient case. The practitioner because of his relationship is the key man to the entire tuberculosis program. He is, or must become, the epidemiologist who will locate the source of the disease. He must follow its insidious ramifications with early diagnosis and prevent its further devastations.

In order to present concrete evidence of the diagnostic and case finding methods available, together with their relative worth to the practitioner, I wish to review two recent studies representing over 6,000 cases. In order to fulfill the generally accepted philosophical concept, these studies represent the two phases of the disease. The first phase is a benign infection (acquired in childhood) followed by a second phase from reinfection (either endogenous or exogenous) resulting in a destructive disease with all the well known clinical symptoms of tuberculosis. The first group representing the pre-adolescent and adolescent ages, the age of the primary infection, is a recent study¹ made at Boehne Tuberculosis Hos-

pital, Evansville, Indiana. The second group represents the young adult population, the age of the early destructive or secondary disease, as reported by Dr. Boynton and associates² from the Student Health Service of the University of Minnesota. Both studies cover the period of 1931 to 1936.

In the Boehne Hospital series, as part of the case finding and tuberculosis education program of Vanderburgh County, 1,003 children (446 males, 557 females) of native stock, and 2 to 19 years of age, each were given physical and laboratory examinations, Mantoux tests (OT and PPD) together with an x-ray of the chest, regardless of the skin reactivity. There was a contact history in 23.7 per cent of the cases. Forty-seven per cent of the cases had some evidence of the primary tuberculous infection (x-ray and/or Mantoux test—OT or PPD). (Figure 1.)



DIAGNOSTIC METHODS-COMPARATIVE-IN
TUBERCULOSIS

Of the primary infection, 72 per cent (365 cases) were positive by x-ray. Thus, about one-fourth of the cases had primary tuberculous infection which was either non-pulmonary or hidden within the mediastinal shadow. Of the cases of primary infection, 68 per cent were positive to one or both Mantoux tests (OT and PPD). This represents an incidence of 32.5 per cent of positive reactors for the entire series. It has been said that an index of the incidence of the open cases of tuberculosis in a community is given by the number of children reacting to the Mantoux test. From this study it is evident that the x-ray locates about three-fourths and the Mantoux test about three-fifths of all cases of primary infection. Kindly be reminded that not one of these cases manifested clinical or physical signs, yet 325 children of this series had been infected with the bacillus of tuberculosis. These cases represent those which are potential cases of the secondary and destructive type disease. The family physicians

* Presented before the Section on Medicine of the Indiana State Medical Association at French Lick, October 5, 1937.

¹ Crimm, Paul D.; Short, Darwin M. and Wood, Hagan E.: Qualitative and Quantitative Evaluation of Old Tuberculin (OT) and Purified Protein Derivative (PPD) with X-ray Correlation on 1003 Children. Transactions, National Tuberculosis Association, 1937, pp. 118-124.

² Boynton, Ruth E.; Diehl, Harold S. and Shepard, Charles E.: The Relative Value of Fluoroscopic X-ray and Physical Examinations in a Tuberculosis Case Finding Program in University Students. American Rev. of Tuberculosis, 1938, 38, 49-56.

of these cases have been advised of these findings. With this knowledge they will, undoubtedly, diagnose a greater number of incipient cases rather than allow them to become advanced.

At the University of Minnesota, Boynton and associates examined 5,158 university students. Of this total, 30 per cent (1,585 cases) had one or more findings indicating infection with the tubercle bacillus. These tests were positive Mantoux test, positive or suspicious physical findings, suspicious fluoroscopic findings, or positive x-ray findings. Of the entire group, 22.5 per cent had a positive Mantoux test. There were 13.3 per cent with suggestive fluoroscopic findings, 5.3 per cent with positive x-ray, and 1.5 per cent with suggestive physical findings. (Fig. 1.) In this series of the x-ray positive cases, the fluoroscopy was suggestive of pathology in 41.9 per cent of the cases. Of the active cases of adult disease in Boynton's series, physical signs were present in 10 per cent of the early and fibrotic lesions and 23 per cent of the moderately advanced cases.

From these two series the efficiency of the Mantoux test for screening and finding potentially active cases of tuberculosis in young patients is apparent. Not all practitioners can maintain an x-ray or fluoroscopy equipment, but no physician is without the accoutrements for performing the Mantoux test, which reduces the number of essential x-rays to the minimum. With the commercial availability of the inexpensive new tuberculin product PPD which is accurately weighed, reasonably stable, and is supplied with diluent for office use, the physician has a means of sorting cases. This becomes a highly effective case finding method up through the "teen" age when followed with x-ray of positive reactors. The family physician who neglects to give the children of the open case families the Mantoux test with follow-up is failing in his obligation to his community and his practice. Until this practice is followed by the profession generally we cannot hope to raise the diagnostic batting average from the usual 8 to 15 per cent for minimal cases diagnosed to the 45 per cent as has recently resulted in Detroit by the intensive use of the Mantoux test.

For each open case of tuberculosis in your practice you are obligated by your profession to assume the role of the epidemiologist as well as that of the family doctor. Your program is brief:

First—examination with Mantoux test of all possible contacts and suspected cases.

Second—X-ray follow-up of all positive reactors, especially those with any signs or symptoms.

The question confronting the medical profession is whether it is to be predominantly a problem of the advanced infectious cases requiring surgical measures and prolonged bedrest and possibly semi-invalidism, or the minimal case that may be readily restored to normal life. The possible results are known from the intensive effort in

communities such as Detroit. The same effective methods are available to you in your practice.

DISCUSSION

M. H. DRAPER, M.D. (Fort Wayne): The general practitioners, in my opinion, are responsible for advanced tuberculosis. It is not the specialist but the practitioner who sees these cases and, seeing them, he should recognize that something is wrong. Tuberculosis should be considered and eliminated early in the process. We find in our work that 80 per cent of the patients sent to the institution are far advanced cases and only about 15 per cent of early cases come in. Tuberculosis can be cured. If a diagnosis is made early, there will be an early recovery. You have at your means a test which is available, is stable and is reliable and you can use it. If you find a reaction, certainly an x-ray should be taken.

ABSTRACT

MODIFIED ASCHHEIM-ZONDEK TEST FOR PREGNANCY

ARNER WEISMAN (*Medical Record*, January 5, 1938) discusses "A Modified Aschheim-Zondek Test for Pregnancy," and stating that but two of such tests have withstood the test of time, the Aschheim-Zondek and the Friedman, he offers a modification of the former by which it may be made in the average physician's office. For the test he uses female mice, known in laboratory parlance as A-Z mice, these being some three weeks old, and avers that the feeding care of these animals is simple, that bread soaked in milk will afford ample diet.

Morning urine is chosen to be tested, the fluid intake of the patient to be restricted the night before the test. The urine is kept in the icebox until used for the test. Before injecting the animals the urine is slightly warmed by pouring into a glass which has been rinsed with warm water.

The mice are placed in a glass bowl, the control mouse being marked with picric acid. The other three are injected with one-half cc. of the urine, morning and night, the injections being made in the inguinal region. Forty-eight hours after the first injection one of the treated mice and the control are killed by making pressure on the spinal column between the occiput and the cervical vertebrae, which causes instant death. The abdomens are opened and the ovaries inspected. If no difference is noted, the injections into the other mice are continued, the body of the control mouse having been preserved in ten per cent formalin. The next mouse is killed seventy-two hours after the beginning of the test and, if necessary, the last mouse is killed after ninety-six hours. The writer finds, however, that seventy-two hours usually suffices for the test. He also advises that the ovaries of mice are not pelvic organs, but are found in the lumbar area, infra-renal in relation to the kidney.

In a positive reaction the ovaries are enlarged, hyperemic and are studded with small, pin-point blood spot hemorrhages, or a larger corpus hemorrhagicum, about the size of a pinhead. In the negative cases the ovaries are pale, small and white, as they appear in the control mouse.

Concluding his article, he says, "The diagnosis of pregnancy, using Aschheim-Zondek mice, has been simplified so that the average physician or office technician can perform pregnancy tests in the office with the least of inconvenience and the greatest of accuracy and speed."

SOCIALIZED VS. HUMANIZED MEDICINE

G. B. WILDER, M.D.

Anderson

It is the irony of fate that the medical profession which has taught the world the value of scientific research should at this time, when the discoveries of medical science have relieved mankind of so many ills, be made the victim of erroneous conclusions drawn from research of another sort.

We, the medical profession of the United States, have been put through the wringer of statistical analysis and sociological research. We have been drenched with printer's ink and confused by continuous debate over socialized medicine or a compulsory system of health insurance.

In the midst of all this controversy what we most desired was an opportunity for quiet thought and a chance to observe for ourselves how the other half of the medical world lives. With these objectives uppermost in our minds we decided to tour the medical clinics in eleven different European countries last summer along with 45 other physicians who were members of the International Post Graduate Medical Assemblies of North America.

Today a physician may travel almost anywhere on the globe and find that he is expected to conform to practically the same code.

One of the reasons why medical ethics has met the test of approval through the ages is that its principles have been based on the unchanging fact that the sick patient requires personal care by another specially trained individual. It is the close personal relationship of the sick person and his trained medical advisor which in our opinion formed a basis of our comparison of European clinics to those of America. Or in other words, it is humanized compared to socialized medicine.

In considering the various forms of socialized medicine in Europe, one realizes that there are two distinct types of such medical practice: the liberal method as seen in England, Scandinavia, Switzerland and France; and the strictly controlled form as in Russia.

BRITAIN'S PANEL SYSTEM

The panel system of the British Isles, which probably is the most liberal and least objectionable practice, was the first with which we came in contact in our European tour. Here, it is only the low income or absolutely charity groups which are compelled to accept socialized medicine. While the middle and upper classes may avail themselves of the service, they still have the privilege of consulting their own private doctors. Any licensed physician may have both panel and private practices. Any young doctor just beginning his career is, therefore, most desirous of a large panel practice for his income will be guaranteed by the government. But in this panel form of medical service the patient still has some choice of physi-

cian. Once a person belongs to one doctor's panel there can be no change to another doctor for a specified length of time and only then when proper application is made and consent is given by a central committee.

Moreover, while the income bracket included in the compulsory health insurance of Great Britain has been 250 pounds or \$1,250 a year, a bill is now pending to increase this to 400 pounds or \$2,000 a year. Thus 2,000,000 more workers will be admitted to the national health system. This bears out the contention that once a bureaucracy sinks its roots into national soil, hypertrophy is inevitable. Just as the income limit is now being raised in England to swell the ranks of those insured against sickness, so, quietly one of these days, the grip of the system will probably be tightened to make it wholly compulsory.

The following opinion of Great Britain's health insurance system was delivered by Dr. F. S. Taylor-Thomas in a recent issue of the *British Medical Journal*: "What is the general practitioner in England today but a glorified first-aid man? Quack patients beget quack doctors. It is a question, from the general practitioner's point of view, of getting as many patients as he can on his list and getting the consultation over as fast as he can. Only by such means can a living be made. . . .

"If these people who are patients had only to pay 3 pence to see the doctor it would cut down England's drug bill by half. The medical curriculum, as at present existing, is not adapted to the conditions of practice. Panel practitioners do not need to be M.B., B.S. Any intelligent nurse could run a panel practice successfully."

So it seems that unless the unsuspecting American public becomes alert to the dangers lurking in such a bureaucracy, they may in the near future find a similar system thrust upon them.

If one desires further proof of the efficiency of humanized versus socialized medicine, "the death rate is the ultimate test of skill and attention of medical practice."

According to Frederick L. Hoffman, the former vice president and statistician of the Prudential Life Insurance Company, who has surveyed socialized medicine from this point of view, mortal evidence has been found against it. "It is claimed," he says, "that under a system of socialized medicine or compulsory health insurance the mass of the wage-earning population will receive decidedly better medical attention. . . . In practice, however, it has been found that the bureaucratic system established under such a method involves countless complications which hinder rather than help the progress of scientific medicine for the benefit of the people. . . . The claims made for compulsory health insurance (as to the value of medical benefits to the insured population) have never been adequately supported by an appeal to national vital statistics."

Taking for the purpose of analysis the comparative death rate for England, Wales, and Scotland on the one hand, and for the United States on the other, Hoffman made statistical study of the diseases of adult life which are subject to medical control. Of the diseases studied and compared, Hoffman found that with only two exceptions (cerebral hemorrhage and coronary artery disease) the mortality rates in England, Scotland and Wales were higher than in the United States. Furthermore, the rate of decrease in mortality was greater in the United States. This finding tinged with irony the statement of the original British act for health insurance. The purpose of the act was "to provide for insurance against total loss of health, and the prevention and cure of sickness and for purposes incidental thereto."

A prominent British physician was asked whether he thought the panel system could be adopted successfully in the United States. He replied: "There is in existence in Britain a permanent civil service personnel which has continuous and real authority to carry out the acts and laws of Parliament no matter what political group may name the nominal heads of departments."

"Without such expert, impartial, and non-political supervision," he said, "a health insurance system such as that which is operating in Britain would be enormously handicapped in the United States."

RUSSIAN SOCIALIZED MEDICINE

The second type of socialized medicine is that in which the state has complete control as seen in Russia. Here we find medicine, like everything else in Russia, regimented and all doctors are under strict governmental control. In fact the medical profession of Russia has lost its lure for men because of the lowering of medical standards, the consequent decline of compensation, and the lack of recognition for individual initiative.

More than fifty percent of the doctors and medical students in Russia are women.

Thirty years ago scientific medical research reached its height in Russia under the guidance of the great Pavlov. Today his pupils and assistants are carrying on investigations and research in various fields of medical science. This type of work is greatly enhanced by government support and control of medicine. Large appropriations make mass production in research possible. For example, an institute for experimental medicine in Moscow is planned. It will cost 100 million roubles and is on Stalin's "must" list for 1940.

Of course huge laboratories, thousands of technicians, elaborate physical equipment and the generous expenditure of roubles by the Red Government does not necessarily make for valuable scientific discoveries. Enthusiasm and equipment are not enough. We have listened in vain for twenty years for some startling ideas and valuable discoveries originating in Russian laboratories. As

far as we can detect, very little medical information of importance has ever seeped through to the outside world from the Soviet Union.

While due credit must be given to this vast amount of research and investigation in the Soviet Union, one is appalled by the methods used in clinical medicine. Large cities like Leningrad and Moscow are divided into districts. Each district has a prophylactic hospital similar to our outpatient clinics. We visited two of these hospitals and found the personnel of each to consist of about 150 doctors (mostly women) who were caring for approximately 2,500 patients daily. Our first impression upon entering the institution was a sense of utter disorder, confusion, and lack of modern equipment. Dark and poorly ventilated corridors were filled with people sprawled on the floors, curled up in corners—waiting, forever waiting. We were told that all patients who are ill must come to these prophylactic hospitals first, if possible. Here they are seen and their cases are disposed of according to their need without any consideration of the patient's desires or wishes. The patient has absolutely no choice of hospital or physician. In fact, from birth to death, the life of a Soviet worker belongs entirely to the government.

As we followed these masses of patients on to various hospitals in Moscow and Leningrad, the complete lack of personal relationship between doctor and patient was most outstanding. Here was emphasized the general fact that there is no privacy or personal pride left in Soviet Russia. There were no individual rooms and patients were thrown together in large wards with no attempt at privacy. A common occurrence in Russian hospitals (never seen in American hospitals) was the catheterization of male patients by women attendants. Patients were also bathed and given bedpans without so much as a protecting screen or drape. We were told that bed linens were changed twice each week but from the appearance of some of the beds we questioned that. Patients going to the operating room, if able to walk, were allowed to go unassisted and completely unclothed into the surgery and onto the operating table. Those unable to walk were carried in nude by an orderly and placed on the operating table where they remained undraped and unclad while being prepared for the coming operation.

As further evidence of the lack of regard for the fastidious whims of patients, so catered to by American doctors, various types of patients were given unmodified gastric juice from dogs' stomachs. We were shown a clinic in Moscow where canned blood was used for transfusion. This blood was obtained routinely three hours after death from people who had died from shock or accident. This method was said to be satisfactory and without danger, but we could scarcely imagine the American public submitting to such procedures.

Because of a lack of rubber gloves in Russia, only the surgeon wore gloves while his bare-handed

assistant handed instruments to him. Again we wondered if the gloves were to protect the surgeon or the patient! At any rate we were unable to obtain any authentic statistics concerning mortality rates for various types of diseases in the Soviet Union.

COMPARISON

Thus we have attempted to show the two types of socialized medicine—the liberal as found in Great Britain, and the strictly controlled form as in Russia. How, then, do these two forms of socialized medicine compare to the humanized medicine of America? Largely by reason of our individualism, the United States has had a better health record than obtained anywhere else in the world. The final analysis of the social intelligence of a people will rest on their health program. Wherever we survey a typical death producing disease and its effect on the community, we do find that the record of the United States is superior to that in countries with either a socialized medical system or compulsory health insurance.

Mass methods in medical practice in America are definitely approaching an end. It is true that certain diseases such as typhoid, diphtheria, syphilis and malaria, lend themselves to mass control by the sanitary engineer and technician. But the practitioner of medicine in the future will be employed largely in a more personal relationship to disease. We are slowly developing a society in which old age with its degenerative conditions will represent a constantly increasing percentage of disease. One out of four or five of the population will live to be over 60 years of age, while heart diseases, cancer, nephritis, pneumonia, accidents and apoplexy will move up as chief causes of death. Medical practice will require a more personal service, a more intensive control.

So, in these days of medical and economic unrest, our medical conscience may be reassured and all may take hope that American medicine will continue, if unmolested by socialized ideas and governmental interference, to show to the world the highest standards of medical science and medical practice.

609 ANDERSON BANK BUILDING.

STANDARD CLASSIFIED NOMENCLATURE OF DISEASE

Until relatively recently, the terminology employed in each new nomenclature has represented a personal and individual choice. The system of the Standard Classified Nomenclature of Disease is the result of an effort to remedy the existing confusion. In addition to the Commonwealth Fund much credit is due to Dr. H. B. Logie, the executive secretary of the National Conference until the work was taken over by the American Medical Association (*Journal A. M. A.*, February 12, 1938). The Standard Classified Nomenclature of Disease was prepared according to a dual method of classification (anatomic and etiologic) and proposes to include every disease clinically recognizable. It aims also to avoid repetition and overlapping and to classify disease in a logical manner. Secondary diagnoses can be coded in a manner exactly similar to the primary. The installation of the system requires little expense or difficulty in addition to the purchase of the Standard Classified Nomenclature of Disease.

ACUTE PERFORATED PEPTIC ULCERS AND THEIR RELATION TO TRAUMA*

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Indianapolis

This paper was prompted by the number of times that we have been called upon to express an opinion in medico-legal cases within the past ten years. Of the forty-nine cases reviewed, we operated upon eighteen. This number includes the cases operated upon at the City Hospital during our services.

We are quite often confronted with the question, "Does trauma, produced by a severe blunt force, a fall, a compression of the abdomen, or strains produced by lifting or pulling, bear any relation as a causative factor in acute perforated peptic ulcers?" Perforations occur at almost any age. In our experience the youngest was a girl of seventeen years and the oldest was a man of sixty-nine years. In this series there were three females and forty-six males and the average age was forty years. There were ten gastric ulcers and thirty-nine duodenal ulcers. Almost all of our cases were in men of slight build, of muscular type, and all the gastric ulcer cases were in men who gave a history of alcoholism. One of our cases at the City Hospital had his second perforation of the duodenum after consuming large quantities of home brew. In reviewing the literature, we find that alcoholism is given as one of the predisposing factors in perforation.

SYMPTOMS

The following symptoms have been noted: Severe, sudden onset of epigastric pain, often associated with pain radiating into the arms, shoulder or shoulder blade; board-like rigidity of the abdominal muscles; cold clammy sweat; normal temperature; pulse slow; blood pressure normal; areas of most marked tenderness usually are over the epigastric region. The face is pale, haggard, anxious, and appealing. The patient insists on not being moved and in sitting up in a jack-knife position. This first stage of symptoms, however, is soon followed by reaction. The pallor disappears, the cold body becomes warm, the anxious look disappears, the pulse quickens, the abdomen becomes distended, respiration becomes shallower, and peritonitis and shock ensue.

DIAGNOSIS

Diagnosis, as a rule, is easy but an error in diagnosis resulting in a delay in operating upon acute perforated peptic ulcers quite often leads to a fatal outcome. This is of great importance to the general practitioner who usually is the first one called to see the patient. When the general practitioner recognizes the fact that an acute abdominal emergency is present, which requires an immediate surgical intervention, he has ren-

* Presented before the Section on Surgery of the Indiana State Medical Association at the French Lick session, October 5, 1937.

dered a service as important and decisive as the successful surgical intervention.

Diagnosis, however, is not always so easy. Some of the other acute abdominal conditions which must be considered in any differential diagnosis are acute appendicitis, ruptured gall bladder, biliary colic, acute pancreatitis, acute intestinal obstruction and angina pectoris. In the latter, differentiation can be made by finding free air under the diaphragm, which is diagnostic of perforation. Johnson,¹ in a series of forty-two cases of proved perforated peptic ulcers, found x-ray examinations positive in eighty-three percent of the cases x-rayed.

Error in diagnosis was made in our first case, which was in a girl seventeen years old. Infection or chemical peritonitis from perforated ulcer spreads down along the ascending colon and the exudate may be concentrated around the cecum and this is often the most sensitive to palpation. A diagnosis of appendicitis was made but our error was soon discovered. The appendix was removed and another incision was made, and a small duodenal ulcer was found partly closed with omentum. Simple closure was made and there was good recovery. She, however, returned a number of years later with recurrent perforated ulcer requiring a second operation.

A study of the pulse may help to differentiate between appendicitis and perforated ulcer. The pulse remains full and slow in acute perforated ulcer cases and accelerated in acute appendicitis. The tongue remains dry in appendicitis and moist in perforated ulcer cases. A careful history in difficult cases is always of great importance. Many patients seized by sudden acute abdominal pain in the epigastric region will say that they never had stomach trouble of any kind but will admit that they have taken soda for "gas on their stomach."

Another type of case that seems to cause considerable difficulty in diagnosis is the so-called subacute or what might be called a chronic perforated type of ulcer. These are the cases where there is a very minute opening just sufficient to permit a small leakage which becomes closed by the surrounding tissues and goes on for a number of days before there are any very definite signs of perforation. These are the cases that quite frequently recover without an operation. The following case history will illustrate two very important points.

A man, sixty-six years of age, had a rather acute onset and no definite diagnosis was made as to the cause of his acute abdominal pain in the epigastric region, although he had an ulcer history. His pain gradually subsided. Five days later he had another attack similar to the first but more severe. He was sent to the hospital at once where he was seen by the writer and a diagnosis of acute perforated peptic ulcer was made. Operation was advised and done. A per-

forated gastric ulcer near the pylorus was found to be about the size of a lead pencil. In attempting to free the pyloric end of the stomach to enable us to close the perforation, we found there were many rather new adhesions and a plastic exudate about two centimeters from the ulcer. This was very easily removed and it was found that a second ulcer was present which had evidently perforated five days previously and had closed over sufficiently to prevent any further leakage.

This case illustrates that we have multiple ulcers and that we have the subacute or chronically forming ulcers and acute perforated ulcers in the same patient.

ETIOLOGY

For the development of a peptic ulcer, two conditions are essential: a lesion of the mucous membrane, either abscess, necrosis or hemorrhage, and a digestion of the pathologic portion of the stomach wall which has become a point of lowered resistance. Peptic ulcers only develop in portions of the mucous membrane which are bathed in acid gastric juice, that is in the stomach and duodenum.

Rosenow, in his work on animals, has shown that infection plays an etiological role in peptic ulcer. Infection has been accepted more as a secondary than a primary cause. Removal of the foci of infection such as infected tonsils, teeth, sinuses, and appendices, often greatly benefit our ulcer patients. Disturbance of the blood supply to the ulcer areas resulting in the formation of thrombi and septic emboli has been given as a causative factor but this has never been definitely proved. The causative role of the nervous system is being more emphasized. Experimental work in animals by injuring the celiac axis of the splanchnics supplying the stomach has shown that ulcerative lesions form similar to those seen in ulcers in man. In man it is not so much the organic disease as the functional disturbance of the nerves; there is a lack of balance between the vagus and sympathetic, and the functional irregularities of the stomach. Careful observation will bear out the idea that a peptic ulcer is not always a local but a constitutional disease, and that psychic factors are important.

Trauma as a primary cause has not generally been accepted. As a secondary factor in acute perforations, trauma has been given as one of the predisposing factors. Perforation of a peptic ulcer occurs as a rule without any external force but may also result from a contusion of the abdomen or by severe blunt force from a concussion of the body in a fall from a height.

A few brief case histories will be given to bear out the above statement.

Case 1. Male, forty-six years of age, laborer. While working in an oil pit, his feet slipped out from under him, causing him to be thrown violently forward, striking the upper abdomen on the edge of a concrete basin. The patient suffered severe acute abdominal pain, ceased working at once, was taken to a doctor, and a diagnosis of acute perforation was made. Operation was done, and acute perforation of chronic gastric ulcer was found. Recovery was good.

¹ Johnson, S. E.: The Frequency of Air under the Diaphragm in Perforated Gastric and Duodenal Ulcer. *J. A. M. A.*, Jan. 23, 1937.

Case 2. Male, forty-two years of age, foreman on a construction job. While assisting his men in prying up a heavy weight with a two by four timber, he swung his weight across the timber and immediately after doing this he noticed a stinging, sickening pain in the epigastric region. The pain became very intense, and he was brought to our office at once, and was given one-half grain of morphine which did not give much relief. We were unable to get the patient to lie down for examination. He had a typical board-like rigidity of the abdominal muscles, face pale, skin cold, patient anxious and pleaded to have something done. A diagnosis was made of a perforated ulcer. Patient was sent to the hospital at once and perforated chronic gastric ulcer found. Ulcer resected, gastro-enterostomy done. Good recovery made.

Case 3. Male, thirty-six years of age, laborer. Patient was struck in the epigastric region by a flying piece of wood, suffered severe pain, ceased working, was taken home, and his family doctor called. Patient was operated at once. A small perforated chronic gastric ulcer found. Patient made good recovery.

Echman reported five cases of acute perforations of ulcers following barium and routine gastro-intestinal examinations with two fatalities. Utili reported one similar case. One of our local roentgenologists reported a similar case. It will be noted that in all of these cases reported there has been a direct blow or trauma to the epigastric region and all were gastric ulcer cases. From our review of the literature and the cases we have seen, we are of the opinion that trauma directly to the epigastric region resulting in a sudden onset of severe pain which continued throughout until operation was done, and perforation found at operations, convince us that trauma is a causative factor in acute perforations in gastric ulcers. Further review of the literature also shows that a great deal of experimental work has been done by Corlette, Burt, Overholt, Magnant, Magendie, Reed, and Berman. Some of these men came to the conclusion from their experimental work that such acts as lifting or pulling where the abdominal muscles are brought into play could not in any way act as a causative factor in producing a perforation of peptic ulcers, while, on the other hand, some have shown to their satisfaction that lifting may be a causative factor, that is, in gastric ulcers.

Magnant and Berman² have made fluoroscopic studies of men while in the act of lifting and claim that they have demonstrated by fluoroscopic examination that the air bubble or *magenblasse* becomes distorted and the anterior portion of the stomach is brought in contact with the anterior wall of the abdomen. From this they have made the deduction that there is an increased pressure within the stomach when there is a strain of the abdominal muscles. We have, however, been unable to find any definite case histories given that prove that such action has taken place. In all the cases that we have been asked to review, where there has been a medico-legal question involved, the histories given were more or less of the

vague type. By that we mean that there have been perforations that occurred one, two, or three days or weeks after the so-called strain or lifting has taken place. In all these cases the men have continued with their work until a later time. From such histories we are not convinced that the strain or lifting was a causative factor in acute perforations of peptic ulcers. No logical explanation has ever been given as to just how duodenal ulcers could result in acute perforation by lifting. Kessler in his book on "Accidental Injuries" has laid down certain postulates that must be satisfied before trauma is accepted as a causative factor: First, trauma must be severe and localized to the epigastric region. Second, immediate onset of symptoms. Third, the continuation of symptoms and signs that point to gastric ulcer.

Frost and Guy³ of Chicago in their recent article on "Multiple Duodenal Perforations" have reported one case of multiple duodenal perforation which was caused by blunt external violence. When we take into consideration the location of the duodenum and that the liver, colon, transverse mesa colon, mesentery route, and lower thoracic wall afford protection to the duodenum, it is very evident that a rupture or perforation by blunt violence is very rare.

TREATMENT

The treatment of acute perforation of peptic ulcer is a surgical operation and should be resorted to as soon as the diagnosis can be made, providing the patient is not in too great shock. Error in diagnosis or delay in operating usually results in a fatal outcome. We know of very few conditions in surgery where the time element is of greater importance than in acute perforations. The less time that elapses between the onset of symptoms and operation, the greater are the chances for recovery. It is this one point that we wish to stress, that a few hours quite often means the life of your patient. In a general way it may be said that the mortality rate doubles every six hours after perforation takes place. Of course we will have to keep in mind that that does not hold true in every case, because every case is different. A great deal will depend upon the age of the patient, the time at which the perforation takes place, whether following an empty stomach or after taking a large amount of food or drink, and also upon the size of the opening at the site of perforation. Just what type of operation should be done will depend upon more than one factor.

We must keep in mind that the chief reason for operating is to save the patient's life. The various clinics in this country and abroad have adopted different methods of operating but one thing must be kept in mind that "at the first operation, the safest operation is the best one."

² Berman, J. K.: Peptic Ulcers. *Jour. Ind. S. M. A.*, Sept., 1933.

³ Frost and Guy: Multiple Duodenal Ulcers. *Amer. Jour. Surg.*, Aug., 1937.

Among the more conservative operators we find that simple closure of the ulcer, with or without drainage, is the usual procedure.

Corff⁴ recently reported thirty-one cases of simple suturing with a mortality rate of 26 per cent. Guthrie⁵ reported forty-two cases of simple closure and drainage with a mortality rate of 16.6 per cent. C. L. Gibson reported 109 cases with simple closure and drainage with a mortality rate of 17.4 per cent. Finsterer also belongs to the conservative group and advises simple closure in all acute perforated ulcers. Deaver belonged to the less conservative type and did a simple closure with immediate gastro-enterostomy and claimed that this procedure reduced the mortality and morbidity and removed the necessity of a second operation for obstruction. He gave his mortality rate as 7.5 per cent. The less conservative group believes that the gastro-enterostomy will aid in the healing of the closed ulcer or accompanying ulcers and will prevent postoperative leakage, hemorrhage, and second perforation. Review of many cases by many good surgeons does not always bear out this fact. It is certainly safe to state that these patients are all critically ill and the additional surgery of gastro-enterostomy or pyloroplasty or partial gastrectomy carries a mortality rate all its own. It has, furthermore, been shown that this double operation does not always prevent the above complications. The chief objections found to the pyloroplasty operation are that too much surgery is required and that these patients have continued distress, attributed to the too rapid emptying of the stomach.

Today we find a more radical school that has accepted partial gastrectomy as the operation of choice. This operation is done in many of our clinics. Professor S. S. Judin⁶ of Moscow has just reported 426 cases of acute perforated peptic ulcers in which 80 per cent of their operations were partial gastrectomy with a mortality of 7.8 per cent. In 20 per cent the more conservative operations were done with a mortality rate of 32.2 per cent. This difference can be explained by the different conditions of the patients in the groups. Gastrectomy was performed in the more recent cases and in patients that were young, while the conservative operations were performed on the elderly patients or when advanced peritonitis was present.

Excision of the ulcer was done in our series whenever possible, using the diamond shaped incision and closing the wound at a right angle to the long axis of the stomach or duodenum. Gastro-enterostomy was done in four cases and in the rest of the cases simple closure was done

with drainage in all but one case, with a mortality rate of 22.2 per cent.

SUMMARY

1. Trauma to the epigastric region may be a causative factor in acute perforated gastric ulcers.
2. Failure to make correct diagnosis and delay in operating upon patients with acute perforated peptic ulcers often lead to a fatal outcome.
3. The treatment of acute perforated peptic ulcer is a surgical operation and should be resorted to as soon as diagnosis can be made, providing the patient is not in too great shock.
4. The less time that elapses between perforation and operation, the greater are the chances for recovery.
5. Gastric decompression lessens mortality and morbidity.
6. "The chief reason for operating is to save the patient's life."
7. "The safest operation is the best operation."
8. We still have recurrent peptic ulcers, no matter what type of operation is done.
9. Lifting or strain is not a causative factor in acute perforated duodenal ulcers.

615 HUME MANSUR BLDG.

DISCUSSION

E. E. PADGETT, M.D. (Indianapolis): Dr. Weller has brought to us in a very concise and emphatic way this surgical emergency which we have long since referred to as ruptured duodenal and gastric ulcers. He has made a distinction in that he has brought in the factor of traumatism as a cause of rupture of this already existing condition. We have all been asking this question as to whether trauma has anything to do with the rupture, and this is what Dr. Weller has found. It seems to me that his conclusions are very well taken and if trauma is not effective in this way it is because of a well organized protection of this part of our gastro-intestinal tract by muscles, ribs, diaphragm and other surrounding organs. I say this because of the ruptures we all have seen in other parts of the gastro-intestinal tract from traumatism. I saw a young fellow, seventeen years old, brought into the hospital with pain in the abdomen and board-like rigidity, and I finally said to the doctor who brought him in, "I think we have a ruptured intestine." We opened the abdomen and found a ruptured ileum about 18 inches above the appendix. Back of that was a history like this: The boy had eaten his supper, then walked down the railroad tracks and was struck by a locomotive. He had no single scratch on his body except a very few on his face, but he had ruptured his ileum.

Another case happened in this way: A man was working in an excavation when 600 pounds of dirt caved in and a large 2x4 struck him in the abdomen. On opening the abdomen we found a rupture of the mesentery.

A third case occurred in a man, forty years old, who was thrown from a motorcycle. He came

⁴ Corff: Peptic Ulcers. *Amer. Jour. Surg.*, Jan., 1936.

⁵ Guthrie and Sharer: Duodenal Ulcers. *J. A. M. A.*, Sept. 26, 1936.

⁶ Prof. S. S. Judin: Partial Gastrectomy in Acute Perforated Peptic Ulcer. *Surg., Gyn. and Obs.*, Vol. 64, Jan., 1937.

into the hospital in shock, with board-like rigidity. Laparotomy revealed a rupture of the mesentery.

Those were not ruptured gastro-intestinal ulcers or duodenal ulcers, but they were traumatic injuries to the gastro-intestinal tract. If the pressure had been on the stomach which had an ulcer, I can conceive how a rupture of the ulcer might occur. True, we do not get a history of cases of that kind, but I think it is still possible. As I said, we know these are surgical emergencies for the simple reason that our old friend peritonitis is just around the corner. We have learned to think of peritonitis in these cases as chemical and infective. We think that chemical peritonitis has very little to do with the outcome unless the rupture occurs in the jejunum or somewhere near the entrance of the pancreatic duct, resulting in digestion of the surrounding structures. The infection that comes in ruptured ulcer is something that is serious. I have had occasion lately to read an article that was very interesting to me in connection with Dr. Weller's paper. It was concerned with some experimental work done at the University of Minnesota. These men worked on injuries of the gastro-intestinal tract and made a series of experiments in anesthetized animals, using dogs, cats and rabbits. They perforated the stomach, duodenum, small and large intestines, leaving the perforations open so as to see what was happening. They came to the conclusion that any perforation allows the escape of intestinal contents. They would put a tube through the mouth into the esophagus. A linear incision made with a knife heals quickly without infection. A perforation in an empty stomach causes peritonitis much less frequently than in a full one. Peristalsis does not influence the amount of escape of stomach contents. If a patient with a ruptured ulcer vomits he is more likely to have trouble than if he does not. In their experiments they used 29 dogs. There were 2 deaths from peritonitis, 6.9 per cent mortality. In these experiments they perforated the empty stomach after fasting and not even water had been given. In the second series they perforated the stomach containing food, using 30 animals. There were 26 deaths from peritonitis. They had an increase in mortality of 7.8 per cent with no difference in the conditions except that the perforation was done on a full stomach. Then in a third series they perforated animals who were given water after fasting and they used 17 dogs with only three deaths. In some of these cases of stomach perforation they used sclerosing materials to make perforations of the wall of the stomach, using 10 dogs with four deaths; in perforations of the duodenum they used 16 dogs, a mortality from peritonitis of 81.2 per cent; perforations of the jejunum at the tail of the pancreas, 9 dogs, with a death rate of 44 per cent. None of these had any treatment afterwards. This is interesting. In perforations of the lower ileum and appendix they used 9 dogs, with a death rate of 100 per

cent; in perforations of the descending colon at the cecum, the death rate was 28.5 per cent; in the rectum 12.5 per cent. The experimental work showed that the bacteria present in all parts of the digestive tract was present in the stomach, about half as many in the duodenum, and about twice as many in the jejunum than a large number in the neighborhood of the ileum. The mortality in these cases depended on the development of suppurative peritonitis, consequent upon soiling the peritoneum, which, of course, in turn depends upon the number and virulence of the organisms. This depends upon the size of the perforation, the length of time it has been present, and, third, the number of organisms at the level of the perforation and the amount of material in the viscus at the time of perforation. Several kinds of bacteria were found in these experiments, with the colon bacillus heavily predominating, followed by the streptococcus.

As to the line of treatment: first, prophylaxis which means early recognition; second, diagnosis and medical treatment of the ulcer and, also, recognition of an early perforation.

S. J. DONOVAN, M.D. (Michigan City): It has been my privilege to work in the Receiving Hospital in Detroit where perforated ulcers were treated under two surgical divisions. The men heading these divisions have been there many years. There have been over 600 perforated ulcers under their care. It has been their experience that simple closure offers the best in treatment. The more complicated treatments, including pyloroplasty, excision, gastro-enterostomy, cauterization, or resection all added materially to the mortality rate.

We have seen a number of cases which, under the fluoroscope, showed the tell-tale air under the diaphragm and yet showed a large quantity of fluid in the stomach. On opening the abdomen, a large perforation in the stomach wall will sometimes be found which has no omentum or exudate over it. This seems to bear out the fact that the intra-abdominal pressure keeps the perforation closed, and that a fluid wave in the stomach does not exclude a diagnosis of ruptured gastric ulcer.

Another point gained from their experience is that of refraining from administering large doses of morphine until the diagnosis is made and consent for operation obtained. About 25 per cent of these cases will refuse operation after the alleviation of the pain by morphine and the operation thus is delayed several hours until the pain recurs. The resultant delay increases the mortality. In the cases which have been perforated more than 48 hours, a jejunostomy is done after the closure. Jejunal feedings are started after 24 hours. This procedure reduced the mortality rate considerably in this late group.

ETHER ANESTHESIA*

ROY GEIDER, M.D.

Indianapolis

"Out with the old, in with the new," seems to be the modern attitude in medicine. Especially is this becoming true in our present practice regarding inhalation anesthetics. Too eagerly, I think, are we casting aside that which has been tried and found true, and turning to the newer anesthetics in much the same way as we adopt newer vogues because they are fashionable. We are thankful for these newer anesthetics and feel that they have a definite place in our armamentarium. Through them we have a wider choice of anesthetic agents today than ever before.

This has resulted in a "combination anesthetic" in our efforts to meet any given condition with the most suitable anesthesia. Their status should be that of adjuncts rather than substitutes, and their future usefulness remains to be seen. Anesthesia and the anesthetic agent is too vital, too important to be considered lightly by anyone. The anesthetic should be as pleasant as possible, but safety should be our watchword. Safety must never be sacrificed for pleasantness or convenience, since no anesthetic is a pleasure tour for the one being anesthetized.

HISTORY AND BENEFITS OF ANESTHESIA

It was on March 30, 1842, that Dr. Crawford W. Long of Jefferson, Georgia, first used sulphuric ether in a surgical operation, and anesthesia was born. Thus was the pain and misery of surgery abolished. It was then possible for the surgeon to operate with certainty of preserving life, when before its discovery, the patient was left in his torture until death relieved him of his suffering. The groans, screams, and hideous cries which must have sounded like the usual conceptions of the orthodox inferno were stopped. Such a situation prohibited cool judgment as to what to do, and, even if it did not, certainly prevented the technical and mechanical execution based on reflection and surgical judgment. Surgical anesthesia was the portal of entry to that large and fruitful field of experimental biology, inasmuch as it permitted research on the lower animals operated on under its influence or prepared under its influence for the study of biological problems.

Ether was first used ninety-five years ago, and to-day ether remains our most reliable and safest of all inhalation anesthetics. It is the measuring stick by which all other agents are classified.

OBJECTIONS TO ETHER

The commonly expressed objections to ether anesthesia are as follows:

First: Unpleasantness of induction.

Second: More frequent pulmonary complications, such as pneumonia, atelectasis, activation

of arrested pulmonary tuberculosis, and pulmonary edema.

Third: Post-operative nausea and vomiting.

There is no doubt but that a straight ether induction when administered hastily and carelessly is a most terrifying sensation to the patient. The patient can easily feel that he is choking to death. However, a slow, steady drop ether induction can be given in a most satisfactory and pleasant manner, without coughing, strangling, and struggling. With the proper pre-medication, which I shall speak of later, the ether induction can be done swiftly as well as pleasantly.

True anesthetic pulmonary complications are no more frequent with ether anesthesia than with gas anesthesia. Postoperative pneumonia, which is strictly due to the anesthetic, is in most cases an aspiration pneumonia or atelectasis. Here again the proper pre-medication and administration make the wet, sloppy lung of other days unnecessary. Atelectasis and massive collapse is brought on by inspissated mucus blocking a bronchus. This condition is favored by shallow respiration and may in many cases be prevented by periodic increase of the carbon dioxide reserve, both during the anesthetic and afterward until the patient's cough reflex has returned. Postural drainage postoperatively and Trendelenburg position during operation favor the prevention of this serious complication. I believe that the struggling of the patient, inadequately anesthetized, plus the general reaction to the surgical procedure, plays a greater role in the activation of arrested tuberculosis than does the anesthetic agent per se. The above is true of gas as well as of ether.

Postoperative nausea and vomiting in many cases seems to be an individual reaction, for some persons are deathly sick with severe vomiting following gas anesthesia and are much less so following ether, and vice versa. Most patients, following gas anesthesia, are nauseated and vomit, but since this often takes place in the surgery, it does not find its way into the records. Sufficient pre-medication with careful judgment in keeping the anesthesia as light as is compatible with the case in hand has resulted in much less postoperative nausea and vomiting with ether anesthesia.

In dealing with complications on the whole (although I do not recommend this) I believe that if we were to dispense with all anesthetics other than straight ether, we would not increase our anesthetic complications one iota.

PRE-MEDICATION

Pre-anesthetic medication is of extreme importance to the smooth conduct of any general anesthetic and to the prevention of anesthetic complications. The agents usually employed are the time honored morphine and atropine, the barbiturates, and avertin. All have lessened the unpleasantness of induction and reduced the amount of anesthetic

* Presented before the Section on Anesthesia of the Indiana State Medical Association at the annual session in French Lick, October 5, 1937.

agent necessary. These medicaments should be balanced both as to dosage and as to time of administration against the anesthetic agent itself. Preliminary medication should be given at least thirty minutes before administration of the anesthetic is begun, and probably forty-five minutes would be even better. When less time than this is allowed, it is usually of no benefit so far as the anesthetic is concerned, and may be responsible for respiratory depression in the post-operative period. Avertin has successfully solved the problem of the highly nervous and apprehensive patient who *must* be put to sleep in his room.

EXPLOSIONS

The non-inflammable agents are oxygen, carbon dioxide, and nitrous oxide. The inflammable agents are cyclopropane, ethylene, ethyl chloride, and ether.

There have been more fires and explosions with ether than with any other inflammable anesthetic agent, because there have been more ether anesthetics. Most of these took place in the days of open fires, kerosene lamps, and motor mounted ether vaporizers. Ether in air burns so slowly that the flame is not propagated into the lungs, but may be drawn into the lungs with inspiration. With oxygen as the atmosphere in which the ether vapor is carried, the rapidity of flame propagation into the lungs is sufficient to burst the lungs almost at the instant of ignition at the anesthetic mask, and be propagated through the entire length of the tube to the source of the mixture with sufficient force to demolish the tube and apparatus. Ether fires nowadays are extremely rare.

With the advent of ethylene, we really became explosion conscious. The most explosive mixture of ethylene, either with air or oxygen as the vehicle, is from 5% to 10% ethylene. Ethylene mixtures with oxygen will *not* ignite if the ethylene is *more* than 80% or *less* than 2.5%. However, the anesthetist or surgeon must not depend upon the existence at any time of any known mixture of anesthetic gas or vapor. They must consider it an explosive mixture at all times. It is a logical argument that ethylene anesthesia requires 80% or more of ethylene and that this is not inflammable. However, during the period of admixture of the gas with the air in the lungs, the ethylene percentage is carried through the complete range of explosibility. The same thing occurs when the anesthetic is discontinued.

Cyclopropane is almost as explosive as ethylene. Mixed with oxygen, it burns when there is a concentration of 2.4% to 63% of cyclopropane; therefore, the anesthetic mixture is at all times well within the limits of explosibility. Inasmuch as this gas is almost necessarily administered with a completely closed system (with carbon dioxide absorption) there is practically never an explosive concentration outside of the breathing bag. There have occurred several cyclopropane explosions, re-

gardless of our present knowledge of this gas and our painstaking precautions against occurrences of this kind. The sources of ignition of anesthetic gases are open flames, actual cautery, and electric sparks from high frequency machines.

We can see by this resumé that ether from the standpoint of explosion is our safest anesthetic agent.

RELAXATION

From the viewpoint of relaxation, ether remains the most dependable and safest of all agents. Complete relaxation may be obtained with this agent for any surgical procedure. Nitrous oxide is the poorest of all agents in this respect, but is satisfactory for operations requiring chiefly analgesia. Ethylene has also been inadequate for abdominal relaxation when used alone. It is a very potent gas and much more dependable than nitrous oxide. Cyclopropane approaches the anesthetic potency of ether more nearly than any other gas inhalant used to-day. Because of this and the increased amount of oxygen available, together with the slow, quiet respiration, cyclopropane is becoming more and more popular. Electrocardiographic studies and pathological studies have given some indication that it is not without damage to the cardiac mechanism, besides being a respiratory depressant. Cyclopropane certainly is not recommended for general use and should not be used for prolonged, deep anesthesia. The greatest success in regard to relaxation with the above gases is obtained only when ether and sufficient premedication are used in combination with them.

Again we have the superiority of ether demonstrated in this important property of relaxation.

SUMMARY AND CONCLUSION

In spite of all the efforts to discover an anesthetic agent capable of rendering safe and satisfactory surgical anesthesia with none of the so-called objectionable features of ether, we have as yet no single agent to replace ether.

I believe that doctors generally and surgeons especially are responsible for the strong prejudices shown by patients for or against certain anesthetic agents. Too often this shows itself when the patient attempts to dictate the choice of his or her anesthetic. I do not believe that the patient should play the role of consultant in determining what agent is used any more than he is allowed to dictate what therapeutic agents are used in treating his disease. Better anesthesia will result from closer cooperation between anesthetist and surgeon in planning the anesthetic. This should include choice of pre-medication, choice of anesthetic agent, and postoperative suggestions for preventing anesthetic complications. The ideal anesthetic should be selected to fit the patient, the type of operation, the surgeon, the skill of the anesthetist and his equipment, and the watchword always should be: "Safety for the patient."

DISCUSSION

FLOYD T. ROMBERGER, M.D. (Lafayette): I think the doctor is to be complimented very highly for the open and frank manner in which he has discussed this problem. It was a very, very excellent exposition. I always teach my interns and students that the primary, fundamental thing which they must learn with regard to anesthesia, in all its aspects, is to be able to give a good ether anesthetic, because that, in a very real sense, is our yardstick with regard to all other inhalation agents.

I would like to ask Dr. Geider to discuss for us the method of approach, both as to the handling of the patient for the surgeon and also the anesthetist's manner of administration, in those cases where the surgeon does not agree to give the pre-medication which seems indicated in any particular case.

CHARLES N. COMBS, M.D. (Terre Haute): This is very interesting to me. In the olden days all we knew was ether; that is all we were taught. I have taken up the newer anesthetics as they came along, but I am always glad that I was trained early in ether, because when I get into deep water or when other methods fail, I can always go back to ether and know at least that I can put the patient to sleep and allow the surgeon to perform the operation. I may be old-fashioned, but I think we should still keep our hand in with ether and should know how to give it properly. Sometimes patients will stand a great deal of it. All of you have had patients who have taken great quantities of ether, and who awaken feeling fine and with no nausea at all, and they will brag about the anesthetic. How one can explain that, I do not know.

I cannot agree with Dr. Geider in saying that ether is the most perfect agent for getting relaxation, because there is nothing more effective than local anesthesia in fractures where we absolutely relax all of the extremity. Certainly there is nothing more capable than spinal anesthesia in relaxing the abdomen.

ROY A. GEIDER, M.D. (Indianapolis) (closing): I thank Dr. Romberger for his kind words. In regard to my approach to the patient, I am up against the same thing that anybody is who does not or is not allowed to dictate pre-anesthetic medication for the patient he is going to anesthetize. I have no solution for this except cooperation on the part of the surgeon. I recently had to anesthetize a 200-pound, twenty-two year old man for tonsillectomy. I was ashamed of it. He had no pre-anesthetic medication, and he was scared to death, and it was the typical kind of an anesthetic that I mentioned in my paper, wet and sloppy, with all the dissatisfaction you can possibly have in an anesthetic. That sort of thing cannot be corrected until you have the cooperation of the surgeon.

PRODUCTION OF ABNORMALLY HIGH ERYTHROCYTE COUNTS IN PERSONS WITH ACHLORHYDRIA BY CONTINUED USE OF LIVER EXTRACT

HANES M. FOWLER, M.D.

Fort Wayne

The triad of glossitis, achlorhydria, and subacute combined degeneration of the spinal cord, even in the absence of any blood change, is considered pathognomonic of the Addisonian syndrome. Occasionally in such a pure instance of cord change (formerly regarded by the neurologists as a separate entity and system disease) it may be years before the characteristic macrocytic anemia appears, but it is said to be eventually inevitable. Hurst and Bell¹ were the first to show that any case of funicular myelosis conforming to the specific characters was invariably associated with an achlorhydria. In recent years it has been well demonstrated by Holmes and Starr and others that the spinal cord is protected by maintaining the erythrocyte count at or slightly above five million cells per cubic millimeter, and it is generally felt that our only therapeutic agent effective in the attainment of this goal is liver extract. For that reason, it seems logical to administer this agent in full maintenance dosage to patients who, though not as yet showing blood alteration, do exhibit findings indicative of early spinal cord changes.

The first case is that of achlorhydria with glossitis and symptoms indicating early spinal cord changes. The patient was first seen in July, 1935, at which time his chief complaints were stiffness in the knees, pains and weakness in the legs and thighs, numbness in the hands and feet, lower abdominal numbness, dyspnea at times, dizziness on stooping, and occasional attacks of sore mouth. These symptoms had been present for about one year and were getting progressively worse. The family and past history were not significant.

Physical examination revealed a white male, 38 years old, weighing 165 pounds (10 pounds below his normal weight). The pulse and temperature were normal and the blood pressure was 138/90. The only abnormal findings were a chronic granular pharyngitis and crepitus in the knee joints.

The urine was negative. Blood examination showed 5,952,000 red cells, 14,700 white cells, and hemoglobin of 90%. The Kahn test was negative. X-ray examination of the teeth showed no apical infection. Gastric analysis revealed no free acid and six units total acid. X-ray of the chest was negative. The gastro-intestinal barium series was negative except for a spastic colon. The electrocardiogram was normal. It was felt that, while there was some degree of vibration sense present

¹ Hurst, A. F. & Bell, J. R. The pathogenesis of subacute combined degeneration of the spinal cord with special reference to its connection with Addison's (pernicious) anemia, achlorhydria, and intestinal infection. *Brain*: XLV: 266:1922.

in the legs, because of the glossitis and achlorhydria the case was one of subacute combined degeneration of the spinal cord.

He was put on a diet high in vitamins and liver and was given the normal maintenance dose (12 capsules) of liver extract daily plus weekly injections during the first four weeks of treatment. While the patient was on this regime during the next 18 months the red cell count gradually rose to 7,200,000 with a hemoglobin of 91%. The treatment was discontinued for three months and the count fell to 4,230,000 with hemoglobin of 88%. The liver extract was then resumed using one-third the normal maintenance dose. When last seen (one month later) the red count was 5,740,000 with hemoglobin of 91%. There has been no marked change in his general condition while under observation except an increase in the frequency and severity of the attacks of glossitis when the liver extract was stopped.

The second case, a professional man with moderate hypertension and achlorhydria but without blood or cord changes or glossitis was put on the regular maintenance dose of liver extract for a period of two years for its possible nutritional and tonic effect. During this period the red cell count gradually rose to 8,000,000. On discontinuing the liver, the count gradually returned to normal in a period of one year.

DISCUSSION

Two cases of achlorhydria are reported which showed an unusual response of the blood-forming organs to treatment with liver extract. It is generally understood that the administration of liver does not produce abnormally high erythrocyte counts either in normal persons or when used in the treatment of disease conditions. Furthermore, although the blood picture in each of the cases was normal at the time the treatment was started, the unusual response to liver administration indicates that in certain cases of achlorhydria the blood-forming organs exhibit an unusual sensitivity to liver extract treatment.

Lincoln Tower

ABSTRACTS

ACUTE HEMOLYTIC ANEMIA DURING TREATMENT WITH SULFANILAMIDE

Since sulfanilamide or its derivatives contain the benzene ring, it is possible that it may cause damage to the hematopoietic system. S. E. KOHN, Milwaukee (*Journal A. M. A.*, Sept. 25, 1937), reports a case of anemia with acute hemolysis and hemoglobinuria following the use of sulfanilamide. It would appear that certain individuals have some predisposition to react to this dye. Obviously with the great number of patients who have received the drug in the past year and with the few reports of toxic reactions, most persons are not unfavorably affected. If sulfanilamide is to be used, one must constantly keep in mind, however, that it is not entirely without some danger.

PRACTICAL CONSIDERATIONS OF THE PNEUMONIA CONTROL PROBLEM

The possible advantages and disadvantages of specific antipneumococcus rabbit serum, a new and promising development in the field of serum treatment, was one of several therapeutic measures in the control of pneumonia mortality discussed by State Commissioner of Health Edward S. Godfrey, Jr., M.D., in a paper which he read before the Southern Medical Association at its annual meeting in New Orleans on December 1.

Certain theoretical reasons, he pointed out, offer hope that the studies in this field reported from the Hospital of the Rockefeller Institute for Medical Research,* will bring about a major advance. Certain other reasons, he added, point to the need for conservatism with respect to the general use of rabbit serum at present. The reported experience is very limited; the incidence of untoward reactions is said to be quite high; according to some who have been using this serum experimentally, and a considerable proportion of individuals give positive skin reactions to rabbit serum, though they may not subsequently show any evidence of intravenous sensitivity to it.

Enumerating other measures, aside from the skill of the physician in the management of his case, which a comprehensive program might well include, Doctor Godfrey mentioned nursing care as an outstanding essential.

Essentials of a Control Program Based on Serum Treatment

Discussing serum treatment as a method of pneumonia control and some of the essential administrative features of a program based essentially upon it, Doctor Godfrey said:

First, the serums must be made readily available both financially and geographically.

Second, that since the serums are specific and since their effectiveness decreases in direct proportion to the duration of the illness at the time of serum administration, typing facilities are important.

Third, that the success of a program which is essentially therapeutic in approach depends upon the complete support of the individual physician and of the organized medical profession in the state, county or city involved.

Fourth, that since the physician is generally called late in the second, and often on the third and fourth day of actual illness, the success of the method will depend also upon a program of generalized education. Such a program should not be propagandist but rather educational with its focus upon the recognition of the usual early symptoms of pneumonia and the necessity for prompt medical care.

Fifth, that the organization and efficient conduct of a comprehensive program as outlined will require the formation of a full-time unit within the department of health, which unit can serve to coordinate the related activities of the various divisions of the department of health and other organizations concerned.

Savings Effected Through Pneumonia Control

Doctor Godfrey said that while pneumonia control is expensive there is good reason to believe that its cost is comparatively slight when the economic value of the loss of life from pneumonia is considered. In support of his opinion, Doctor Godfrey considered various economic factors in connection with the pneumonia control program in New York State, concluding that an annual expenditure of \$400,000 for this work would result in a saving, directly or indirectly, to the people of the state of \$8,350,000.—*Health News*, New York State Dept. of Health, Vol. 14, No. 52, Dec. 27, 1937.

* Horsfall, F. L., Jr., MacLeod, C. M., Harris, A. H., Jr.: *J. A. M. A.*, 108: 1483-1490, 1937.

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MARCH, 1938

Editorials

The loss of Dr. E. D. Clark at this time is an irreparable one. Although he had completed his term as president of the Indiana State Medical Association, his influence and enthusiasm for the betterment of organized medicine were constantly felt and will be sadly missed. We knew Ed Clark intimately and had been associated with him in a rather intimate way for almost four decades in his capacity as teacher and surgeon, as president of the Association and as personal friend, and we know that our feeling of bereavement is shared by all of the members of the Indiana State Medical Association.

THE SCIENTIFIC TREATMENT OF PNEUMONIA

Until recently little progress has been made in the treatment of pneumonia. Even yet it is commonly the second most prevalent cause of death, being exceeded only by heart disease, with cancer replacing it occasionally in second place. Until the recent development of scientific serum treatment there had been very little improvement in the case mortality percentages since the founding of the Massachusetts General Hospital, which is going a long way back in the treatment of disease. Even with all of the improvements which are made possible by the modern hospital, it would be hard to prove that the treatment of pneumonia—aside from the relatively modern serum treatment—has made such improvement as is capable of making an appreciable dent in the mortality rates. An an-

alysis of available pneumonia death rates is interesting in this connection.

The reason for this state of affairs is to be found in the fact that in one sense pneumonia is not a single disease at all but is really a group of related diseases. For example, there are found to be many types of pneumococcus which are capable of causing typical lobar pneumonia. The number of types has been increasing for several years. Not so long ago we said that there were four types. Now we have thirty-two, and it is entirely possible that others will be found. A few cases of the lobar type are caused by other germs as well. Bronchopneumonia may be caused by any of six or eight organisms, though the pneumococcus is by far the most common offender—in one or another of its thirty-two varieties. Then there are other factors in the etiology which are possibly of great consequence. Influenzal pneumonia is serious because the primary disease has so sapped the resources of the body that the immunological response is retarded or at least seriously affected. Aspiration pneumonia, anesthetic pneumonia, traumatic pneumonia, hypostatic pneumonia, pneumonias due to irritation of gases, dusts, stearate of zinc, foreign bodies and the like, pneumonias due to unusual organisms as that of plague, the tularemia organism, the anthrax germ, pneumonia due to the tubercle bacillus or the germ of syphilis are some of the many forms of lung inflammation which may be called pneumonia. Obviously it will be quite unscientific to treat all of these diseases alike. Fortunately, the process is simplified by the fact that those forms caused by the pneumococcus are by far the most common, though even so there are at least thirty-two types of the pneumococcus. What can be done in such a case?

The answer is much simpler than would appear at first thought. In the first place, more than half of the cases—in most seasons and communities—are due to types 1 or 2. This has made it possible where better facilities are not available to give a mixture of type 1 and 2 serum acting in the hope that the case belongs to one or the other type, and that there will be present in the combined dose enough of the significant serum to help the patient over the hump. Not a very glowing prospect, to be sure, but worthy of consideration in fighting an enemy of such a nature that no bets may be overlooked. Certain other types, particularly 5, 7, 8, 17, and 18 are more common than are most of the others. Type 3 is a very dangerous one but until recently the serum for this organism has not been very successful, or at least not readily available. We are told that this type of serum is now on the market, though it is still more expensive because of the extreme difficulty in its preparation.

It is possible now to get any of the thirty-two types of serum, though the more unusual ones must usually be ordered from New York City, and may occasionally then not be readily available. By

sending the order by wire and having the serum shipped by airplane it is usually possible to get the product to the patient in less than twenty-four hours. For the more common types it is usually possible to get serum within a few hours. When the sputum is typed and the specific serum is given early, the clinical results are usually described as being little short of miraculous. Usually the patient shows a prompt improvement in appearance, relief of pain and discomfort, fall in temperature and the other signs ordinarily designated as "crisis". The expense of the treatment is constantly falling, but even so is still high. When one takes into consideration, however, the seriousness of the disease, he will not usually quibble about the price of an effective remedy, provided it can be bought by any means whatever. As yet, there is no provision in the "Antitoxin Law" for the buying of pneumococcus serum. (The law applies only to diphtheria antitoxin, tetanus antitoxin, scarlet fever antitoxin and rabies vaccine.) In counting expense, it should be borne in mind that this treatment greatly reduces the cost of treatment in other ways: fewer visits by physician, fewer days in hospital, shorter time for nursing care, not to mention loss of working time and the possibility of death.

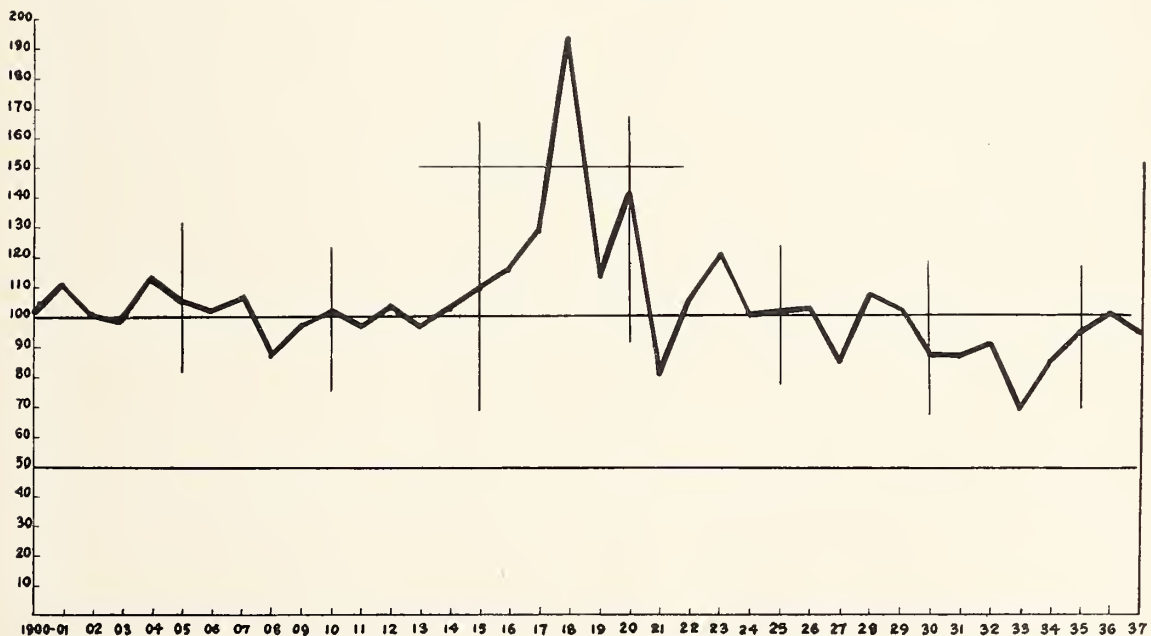
The matter of the typing of the pneumococcus still frightens those physicians who are not accustomed to laboratory procedures. This difficulty has been greatly lessened by the development of much easier, more accurate, and more available methods of typing the sputum of the patient. We shall not in this place attempt to give the technique, but will suggest merely that every physician who has a good microscope—and every physician

should have a good microscope—may invest in at least the more common type test sera and begin to treat pneumonia *a la 1938*. His patients being desperately ill of a very dangerous disease deserve no less. Pneumonia can be made to walk the plank just as have diphtheria, typhoid fever, dysentery and such ilk. The vital statistics ten years hence should show *pneumococcus pneumonia* as a comparatively rare cause of death.

Particularly we wish to stress the importance of early diagnosis. Every person in Indiana is within two hours of a competent laboratory for typing and can promptly get the serum. The sooner the serum is given the less it will take and the better will be the result. Late cases, and cases showing the germ in the blood stream, need much more serum—at least twice as much—and even then do not respond as well. *Take no chances with pneumonia. Get the sputum at once. Type the sputum immediately and give the corresponding serum as soon as possible.*

THE PRESIDENT'S PROGRAM

A communication has come to us from a down-state physician, a young man who is devoting no little time to the study of the future of the medical profession, and he outlines a program worthy of consideration. His program dovetails with that of our president, Dr. Herman M. Baker, whose messages for the coming year deal almost exclusively with preventive medicine. Our correspondent wonders if it is possible for us to work out a scheme of preventive medicine with a plan wherein the membership at large of the Indiana State Medical Association will play the leading role. He suggests that the average physi-



Deaths from pneumonia in Indiana per 100,000 population.

cian even now is devoting considerable time to preventive medicine and that much can be accomplished by coordinating our efforts. A few hours each week on the part of each member of the Association is all that is needed to bring this about—time given through an organized program within each county medical society.

The doctor asks the pertinent question, "Does this work properly belong to the State, when paid, salaried medical workers usurp the work of medical men?"

The suggestions made in this communication are very much to the point. We have a program before us, one that officially has been adopted for 1938. In it the study and the preachment of preventive medicine stands out prominently. Our president is stressing one phase of this field each month, and it becomes the duty of the membership at large to follow the leader.

One of the strongest elements in our armamentarium in the battle against socialized medicine is the fact that the medical profession ever has been found fighting disease. Our ultimate goal is the discovery of the cause of disease and the means of prevention. Of late, the general public has become cognizant of the fact, and in most circles we are being given full credit for our accomplishments in that direction.

The questions raised by the author of the letter referred to can be answered in the following way: yes, it is possible to work out a scheme of preventive medicine, a plan in which all can take part; no, this work does not belong to the salaried medical man employed by the state whose sole duty, we maintain, is that of director. The program, itself, must be carried on by the physicians in the field, the private practitioners. There are our answers. Just how to go about the business becomes the problem. First and foremost, all such plans must be carried out in the various counties of the state under the exclusive direction of the local county medical society. Under any other plan, abject failure is sure to follow. There must be a correlation of efforts.

On the President's Page in *THE JOURNAL* for January appears a cartoon to which we previously have referred. It depicts our president standing at the wheel of our ship, each spoke of the wheel bearing the name of some medical or health problem that needs solution. Each of these problems will form a "topic-of-the-month" and *THE JOURNAL* will have editorial comment and special articles upon each of these subjects in their turn. Each county society is urged to feature these topics in their meetings, and emphasis should be given whenever possible to the subjects.

Much remains to be done before the president's program is completely worked out, but it is a workable plan and one that will do much to keep us within the good graces of an increasingly critical public. *THE JOURNAL* commends the program and pledges support with all the resources at our command.

GRADE SCHOOL BASKETBALL TOURNAMENTS

The physicians of Indiana will be interested in the development of the practice of holding grade school basketball tournaments. These tournaments have been conducted on a smaller scale for several years. So long as they have been under the direction and control of local health authorities, the objection to them has not been great.

This year there were forty teams in a tournament which was dubbed "The Indiana State Junior High School Basketball Tournament." Forty teams played in the elimination matches which were played off in three days. This required six rounds of play, meaning that the teams reaching the finals may have had to play six games in three days. Basketball, as it now is played, apparently is more strenuous than ever before. The elimination of the center jump—certainly an improvement from one standpoint—has taken out the short breathing space that necessarily was granted after each goal.

Most physicians will agree that boys twelve to fourteen years old are too young to play interscholastic basketball, especially when the pressure is as high as it is likely to be in an Indiana community. Recently the Executive Committee of the Indiana Physical Education Association adopted a resolution that grade school students should not play more than two games in a week. It is likely that most of the members of that committee questioned whether children of this age should even play one game a week if competition is sharp. Tournaments of this sort are disturbing to school work, the main purpose for which schools have been organized.

Mr. McMurray, State Superintendent of Public Instruction, says frankly that he is opposed to tournaments of this sort. The Indiana High School Athletic Association has no jurisdiction for the reason that these are not high school students. We have a right to infer, however, that inasmuch as they have done away with the two-day tournament in Indianapolis, bringing sixteen high school teams to an elimination contest played in two days, and have substituted a one-day tournament in its place, that they would be opposed to a three-day tournament with forty grade schools participating. The Bureau of Health and Physical Education of the Indiana State Board of Health is likewise opposed but apparently has no authority to stop a tournament of that sort by direct order. It is interesting to know that there have been two deaths among Indiana school boys this year directly following participation in basketball. In each case, the boy died shortly after taking part in a practice game. In one case the boy had a health certificate, and in the other, the boy did not. One of the boys was definitely in training.

There are objections other than the physical strain. For example, these boys (some of them) had to be away from home for a period of three

days and two nights. This would not be desirable unless great care were taken with them during the time. Obviously, all of them missed school during this period. Obviously, too, this distraction upset the school routine for the pupils who would naturally be excited about the tournaments in which their classmates were taking part.

The physical educators responsible for the teaching of girls say that interest in a team of this sort precludes the possibility that the girls have adequate gymnasium facilities for the reason that emphasis is put upon the boys who are on the team. From the physician's point of view, all of these points are secondary to the physical and psychological effects which a high-pressure tournament may have upon the poise and mental attitudes of the immature athletes who take part.

It is interesting to observe that college basketball teams very rarely play two games in one day, or more than two games in a week. High school teams do so more frequently, but in no case in many years have we heard of forty high school teams being eliminated in three days. How much greater the danger must be when the athletes are in the seventh and eighth grades! It is well to bear in mind, also, that basketball of the current year is unusually fast, due apparently to certain changes in the rules. If grade school tournaments are good there should be appointed a board of control (city, county or state, as the need may be). If they are injurious to the boys, they should be abolished!

MODERN WITCHCRAFT

"Modern Witchcraft" is the heading of an article in the December, 1937, issue of the *Bulletin* of the Indianapolis Better Business Bureau, and there follows an expose of a situation existing in the capital city which reaches amazing proportions. This time it is a discussion of one of those new-fangled health machines known in drugless circles as "etheronic" machines. The machine and the findings of a group of investigators from the Bureau are described and caustically commented upon by the editor of the *Bulletin*, T. W. Overley.

The machine really is a wonder of the age. A woman who was prevailed upon to take a course of treatments with the machine later was persuaded to buy one of the contraptions, and tells of its operation thusly: "The operator wrote the name of the patient on a slip of paper about six inches long and one and one-half inches wide, stating that this paper had been chemically treated and termed it a 'saliva specimen.' This paper was then inserted in the machine and the operator recited names of various parts of the body, stating that as she did so she could feel vibrations that would tell her which of the anatomical parts were diseased while she turned the 'vibratory knob' of the machine. She would tell the patient that she was 'tuning in' the machine to the part of

the body affected." During the proceedings the operator supposedly recited an incantation formula which was intended further to impress the gullible patient. Of course, as is usual with these modern marvels of magic-working machinery, it is not essential that the patient be personally present in order to receive the incalculable benefits of treatment; absent treatments are given with equal success, the operators declare. Originally priced to a patient who had decided to purchase one at \$375, the price was later upped to the rather nifty figure of \$7,500! The buyer was to receive a course of instruction free, though the usual price of this bit of education was fixed at \$500. The patient in question had presented herself for treatment at the office of a licensed drugless healer, but it seems that most of her treatments and the whole of the "come on" conversation came from an unlicensed assistant. This aide seemed to have acquired a diploma from a naturopathic school in July of 1937, and of course is not recognized by our Indiana Board.

This is by no means the only drugless healer concerned in the disreputable business. According to the Bureau, some half dozen or more of these folk in Indianapolis are lending themselves to the scheme. Further, the Bureau avers, a few licensed physicians are mixed up with this messy affair. One is said to have loaned his name to an operator of one of these machines who revealed that the doctor was paid three dollars per patient in exchange. Much more might be said of the revelations of this nefarious business by the Bureau, but enough has been cited to show the dire necessity of some plan of action against such things. As the Bureau points out, "Or are they so shortsighted as not to know that such assertions made to credulous laymen are vicious and dangerous in the extreme? Or are they so venal that they will promote drugless healing or radiotherapy treatments on persons suffering from acute appendicitis, knowing full well that those patients are very likely to have ruptured appendices and peritonitis as the result of damnable delays."

A long period of service on the Indiana State Board of Medical Registration and Examination has familiarized us with the limitations of the Board in curbing such intolerable situations as that mentioned in this editorial. This is not the only instance in which our drugless practitioners, licensed though they may be, have stepped beyond the limits of the field for which they were licensed. A few days ago we saw a photographic reproduction of a report made to an insurance company, covering an accident case, in which a drugless operator boldly signs himself as an M.D. Others align themselves with licensed physicians, carry on a regular practice, using and prescribing drugs and otherwise making themselves general nuisances. Somehow or other the general public, as well as state officials, feel that the correction of such evils is the duty of the medical profession,

yet if the medical profession attempted any such correction, cries of "Persecution!" would stop such efforts, and the irregulars would be glorified and martyred. The medical profession is subject to licensure by the state, and none will say that this is improper, but to shoulder onto us the duty of policing the state in matters pertaining to public health is asking a bit too much. Such procedures as are exposed in the Bureau report should receive the attention of state officials, and we should not forget to remind our legislators, in 1939, when the drugless practitioners appear with the biennial bill for "relief" that they really do have some shortcomings.

Editorial Notes

The modern treatment of pneumonia depends upon early diagnosis, to determine the type which will indicate to the physician the best method of treatment. Prevention, of course, is better than cure. No cold is slight. Impress upon your patients that they must go to bed and stay there until they are strong again, and that a physician should be called before it is absolutely necessary. These are simple rules for protection against pneumonia.

Dr. William N. Wishard has acknowledged a letter sent to him by the Council of the Indiana State Medical Association, and advises that after a sojourn of seven weeks in the hospital he is again at home. He has our best wishes for a speedy return to his usual activities.

March fifteenth is the deadline for making your income tax report to Uncle Sam. Somehow or other, that gentleman is adamant in this matter and insists upon having on-time reports from such of his nephews and nieces as are fortunate enough to have any considerable income. If you have not attended to this matter, better get it off your mind immediately; there is no escape!

The Wayne-Union Medical Society has issued an attractive little booklet containing the names and addresses of the members, a list of officers and committees, program subjects for each month and the names of those responsible for the programs. It is a handy, vest-pocket size reference pamphlet, and we can well imagine that the copies will be used many times during the year.

This month's topic is "Pneumonia," and we hope you will read the articles in regard to it carefully. A study of the chart concerning pneumonia in Indiana since 1900 (on page 133) will be interesting to you. Pneumonia is one of the diseases whose name is terrifying to the ordinary layman. It is one of those diseases about which the public needs more education. Talk about it in your county medical society meeting this month—and talk about it with your confreres.

The City of Indianapolis has formally accepted the Kathryn Cones Patrick bequest of \$100,000 for cancer research at the Indianapolis City Hospital. Of this sum, \$40,000 is to be immediately available, the balance being payable during the next ten years. Proposed plans are that a clinic will be conducted in the hospital wards and that an out-patient department will be maintained. It is stated that the necessary equipment for the venture will be purchased with funds from the bequest.

The five health groups of Indiana have organized a council known as the Inter-Allied Health Groups. This council consists of five representatives from each of the following groups: Indiana State Medical Association, Indiana State Dental Association, Indiana Pharmaceutical Association, Indiana State Nurses Association and Indiana Hospital Association. In addition there is one representative from Purdue University and one from the State Board of Health. Indiana University is represented by several members on the council.

Is it possible to have physicians work together so that a practical scheme of preventive medicine may be put into operation and thus stave off socialized medicine, or at least the worst forms of socialized medicine? Whether he realizes it or not, each physician does devote some time each day to this work of preventive medicine. If each doctor would give five hours per week to this work in a correlated manner through his own medical society unit, his work would be of inestimable value. And he would be doing a valuable work in saving his own private practice.

According to the Metropolitan Life Insurance Company's statistical bulletin for November, pneumonia accounts for more than 100,000 deaths per year in the United States, a toll greater than that from any other communicable disease, and one and one-half times more than that from tuberculosis. It is a leading cause of death at all ages

combined, and it is prominent in the mortality picture throughout the entire range of life. Among industrial policyholders in this company, death rates from pneumonia are about 50 per cent higher for males than for females, and it is believed that occupation is an important factor. Pneumonia provides a broad and fertile field for life conservation work.

Several years ago when Dr. Rollo N. Harger of the Indiana University Medical School exhibited his drunkometer at one of our state conventions, considerable levity was elicited and the genial doctor was made the butt of many a joke over what many termed the "contraption." Now that the instrument has had its day in court and a ruling has been made that its findings are admissible evidence, Dr. Harger is having his turn. There is every reason to have full faith in Dr. Harger's contention that this little instrument is capable of delivering the goods, and to predict that in no time its readings will appear, officially, in many Indiana courts.

After long last, the question finally is settled: the Supreme Court of the State of Indiana has decided that "drag fishing" is illegal. To some fishermen this term may be unfamiliar but to most of us it means fishing by means of a bare hook, dragged through the water, in the hope that the hook may become engaged in the body of a fish, perhaps under a scale, and the fish may be removed from the water thereby. The court holds that the fisherman who engages in that sort of enterprise does so with the expectation that, sooner or later, "said hook will come into contact with some part of the fish, without the intent of the statute." Now that the question is legally settled, let's get back to the old, time-tried methods of fishing and cease to violate the fish and game laws.

Pneumonia is recognized as one of the real killers of mankind. It is third in the causes of death in the United States. Newer methods in diagnosis and changes in treatment have awakened professional and public interest. Any control program formulated should consider three points: (1) the paramount welfare of the public; (2) the maintenance of the doctor-patient relationship; (3) its practicability and workability in Indiana. Articles on pneumonia in this issue of *THE JOURNAL* are up to date and informative and should be read in their entirety by every physician in Indiana. Two prominent internists have sublimated their egos and prepared a question-and-answer article (published on page 141). Does it answer your questions?

The Council of the Indiana State Medical Association held its mid-winter session in Indianapolis, January fifteenth, with a full attendance, the meeting being what we could call a most productive one. This Council, perhaps not well understood by most members, is one of the important groups in our organization. It corresponds to a board of trustees, looking after such matters of business as require attention between annual conventions. A report of the transactions appeared in the February *JOURNAL* and should be read by every member as it gives a cross index of the activities of the Association. Chairman Austin so maneuvered the proceedings as to expedite business to such an extent that more than an hour of time was saved. He was deservedly re-elected chairman for 1938.

That certain members of the United States Senate mean business when they attack the syphilis program is indicated by the terms of a bill recently introduced in the United States Senate by Robert M. LaFollette of Wisconsin. The bill is said to represent the recommendations of the conference on venereal disease control held in Washington last year. It provides for an appropriation of three million dollars for the year 1939, and an increasing amount each year until 1941 when it reaches the sum of twenty-five million dollars. After 1941 the sum remains the same as an annual appropriation. All of this bears out the declaration that *THE JOURNAL* has rather frequently made to the effect that the medical profession *now* has the opportunity to control the anti-venereal disease movement. If we do not do it, the Federal government stands ready to take charge—and to give orders!

The Journal of the Kansas Medical Society has appeared in a new dress, showing a remarkable improvement in appearance over former years. The mechanical make-up has undergone many changes—a new type, better spacing, and a higher grade of paper stock have combined to add materially to the appearance of this interesting publication. The new cover, a light green, is indeed good looking, and we congratulate the editorial board for the improved appearance of the publication.

Beginning with the current issue of *THE JOURNAL* we are presenting a series of economic subjects by lay writers, this as the result of a suggestion made to the Council at the recent mid-winter session by Dr. C. J. Clark of Indianapolis. The series will cover a wide range of subjects, all of which we trust will prove interesting to our members. The first article has been prepared by the president of the Indiana State Bar Association,

Mr. L. L. Bomberger, and we sincerely trust every member of the Indiana State Medical Association will give it his careful attention. We consider this one of the best interpretations of what State Medicine would mean that we ever have read; certainly it shows that the writer made an exhaustive study of the matter and his presentation is a logical marshaling of evidence pointing out just what would happen were the proponents of this wild scheme to be successful in their efforts. We shall indeed be pleased to have comments from our readers on this innovation and if the present series meets with the general approval of our members we shall endeavor to continue them.

A letter to the Indianapolis *News* printed under "The Voice of the People," January 19th, discusses the present campaign of the Indianapolis Better Business Bureau against quacks. The writer seems in thorough accord with the work of the Bureau but insists that once the thing is started it must be kept up until Indianapolis and Indiana cease to be happy hunting grounds for these irregulars. In concluding his letter he says, "There is ample law but the trouble is the law has not been enforced. The public has depended upon the medical profession to protect the good name of medicine, naturally the public feels it is up to the medical profession to prosecute these so-called quacks. Is the ice so thin they hesitate to venture out in this matter? Will some one explain why quacks are not prosecuted?" To most medical men, at least to those who have given the matter serious consideration, the answer is clear: Mr. John Public is not ready to do his part in these prosecutions; Mr. John Public is too prone to point an accusing finger at the medical profession and accuse it of ulterior motives in such prosecutions. This statement is conservatively written, since we have had no little experience in the prosecution of such cases.

One of the numerous departmental activities of the American Medical Association is little known to the average physician—that having to do with medical magazines. More than 1400 medical journals are received in this department each month representing practically every medical publication in the world. They are thoroughly read, catalogued, and filed, and they remain in the files for twenty years. Many of the more important journals are bound and preserved indefinitely. From these journals the package libraries are made up and loaned to physicians in all parts of the country. This is only one of the almost innumerable departments in that great building at 535 North Dearborn Street,

Chicago, that proves daily to be of incalculable benefit to the medical profession. While the American Medical Association stands at the head of the list of medical societies throughout the world, and while it performs in a manner as to be of the greatest good to all of us, yet it could enlarge its field of usefulness if every member of our Indiana State Medical Association were a Fellow of the American Medical Association.

What a pity that the February issue of *Fortune* cannot be sold for a few cents on the newsstands! The article entitled "The Accident of Birth" published in that issue would open the eyes of a good many dupes who regularly invest their money in contraceptive preparations of one kind or another—there are some 600 different brands—none of which is entirely effective when used alone and some of which are potentially dangerous. The industry at present is said to be a \$250,000,000 a year business conducted through some 57,000 outlets in drug stores and many times that number of outlets of various other kinds. *The Journal of the A.M.A.* calls it "a strange industry, with one foot among the sciences and reliable manufacturers and the other among hundreds of scoundrels who make small fortunes out of ignorance." Sales are promoted in part by hotel service boys, peddlers, and even slot machines. Yet it is supposed to be against the law to sell contraceptives except for bona fide medical purposes! The article in *Fortune* is illustrated with reproductions of newspaper advertisements, window displays in drug stores and a vending machine found in a public toilet room. Physicians will find the article interesting and informative, but it is unfortunate that it probably will not reach the countless thousands who regularly are cheated through the purchase of such products and who probably will not see the article. An immense amount of public good would result if the article could be reprinted in some of the cheaper weeklies that are avidly read by countless thousands whose regular reading material does not include such a publication as *Fortune*.

J. N. Elliott in the *Illinois Medical Journal* for December calls attention to a too commonly overlooked area of infection—the upper lip. He speaks of the "danger area about the face," which Hunter has outlined as "from the hair line of the forehead above and chin below, with two parallel lines connecting this area at the outer wall of the orbits on each side." He directs attention to the statement by Roberts to the effect that "a carbuncle of the face is one of the most dangerous infections," and advises hospitalization for every case. Laymen are prone to disregard infections in the area described and on occasion medical men seem to suffer a lapse of memory in this regard. The author graphically

describes the symptoms and course of several cases, each of which terminated fatally. The anatomy of the region is carefully described and shows how these infections spread into dangerous areas. The connection by which infection involves the cavernous sinus is pointed out. Treatment advised consists of immediate hospitalization with absolute rest, and even lip movements incident to talking are to be avoided. Traumatism of any sort is taboo. Incision of the affected area and pressure on the area in an effort to express infectious material is, of course, "out." Hot packs are advised and radium has been used with benefit in many cases. To one who has seen a case of cavernous sinus thrombosis, the article has a distinct appeal.

Colorado is to be congratulated upon a victory for decent government and for scientific medicine through the decision of the secretary of state of Colorado, who found that a petition by chiropractors for a constitutional amendment was illegal, insufficient and, therefore, invalid. The proposal, designed by a group of Denver chiropractors, would have repealed the Basic Science Law and made it impossible ever to enact another, and temporarily at least it would have repealed the Medical Practice Act and most public health laws. Most important it would have taken from the state the right to license any profession. Similar problems probably will be encountered in other states later, and for them a precedent has been set in Colorado. The Colorado profession found it necessary to employ attorneys and others in a fight to maintain the standards of the learned professions, and to pay the bill it is necessary to levy a special assessment against the society's components. Probably no physician who realizes the value of the work done will object to the special assessment, but we agree with the writer of an editorial¹ in the *Rocky Mountain Medical Journal* who suggests that other groups whose "interest in the outcome of the fight is more financial than is the doctors' interests, should come forward with substantial contributions." The medical profession of Colorado and, in fact, of the whole country should feel grateful for the work done in Colorado in establishing a precedent in this decision.

Smog sickness, editorially discussed in our January issue, still is a live subject in our capital city. Herman Morgan, secretary of the Indianapolis Board of Health, recently gave a reporter for the *Indianapolis News* an interview in which he declared that respiratory diseases in that city had reached an unprecedented figure and attributed

this untimely rise to the smog that continues to envelope the community. He said, "While there are several factors responsible for the large number of fatal pneumonia cases, air pollution is the predominant one." Dr. Morgan also stated that diphtheria cases were markedly on the increase in the last few weeks and attributed this to the same cause, and mentioned that the number of diphtheria cases in adults is much greater than in former years. There can be no question but that we were correct in our statement that smog is a health menace; we reiterate our assertion that the smoke nuisance is largely an abatable one if we have the full cooperation of smoke abatement officials. One thing that might well be investigated is the increasing use of bootleg coal, much of which is of the cheapest sort, is dirty and is not adapted for use in the average furnace. This traffic has reached every point of the state. Roads leading to northern Indiana are crowded with trucks hauling the stuff. It is obviously impossible to prevent burning coal from giving off smoke but it is entirely possible to fire a furnace or a boiler so that there is a minimum of smoke, and in such management there is a considerable saving in fuel.

The most pleasing bit of news we have read in recent weeks is the story of the action of the Supreme Court of the State of Indiana in bringing to an end the marriage license racket within our state. It *was* a racket, and one that grew from year to year until its stench reached every border of our state. Indiana long has held her head high because of her many accomplishments and because of the fact that her citizenry has contributed in no mean manner to the good of our Federal commonwealth. It is true that, on occasion, we have had to bear the brunt of criticism because of the misdoings of some of our citizens, but on the whole we have been mighty proud of our state. This marriage license affair, chiefly centered in a few of our border counties, was a canker sore within the body politic. Long have we hoped that means might be found to bring about its effacement, so it is with all fervor that we thank Fred Egan, of Gary, prosecuting attorney for Lake County, for his invaluable work in bringing an end to this disgraceful chapter in our history. Mr. Egan deserves the commendation of every decent-thinking citizen of Indiana. It was no small task, that of opposing what had come to be a racket of such proportion as to be overshadowed only by those we well recall during the days of the "noble experiment." Plenty of heat was turned on Fred Egan; he was forced to fight members of his own political faith; he fought against the advice of some of his personal friends, but he won, and in the winning he has redeemed, to a very great degree, the name of his state.

¹ Editorial: Chiropractic Petitions are Declared Invalid in History-Making Decision. *Rocky Mountain Med. Jnl.* Vol. 35, No. 2, Feb., 1938, p. 103.

President's Page

From the time of the Napoleonic Wars to the World War, thinkers of Western Europe and America had come to believe that universal civilization would gradually develop. They had not reckoned, however, with the rapid development of urban and industrial civilizations and they had not imagined the newer developments in the dissemination of knowledge. It had not occurred to them that the vast hordes of illiterate peoples in Northern and Eastern Europe, throughout Asia and in Africa would receive enlightenment with the rapidity that was made possible by the development of the telegraph, the motion picture and the radio, and even in our own western countries knowledge was disseminated so rapidly among the working classes and the peasant classes, who had previously been satisfied with a bare living, that it could not have been conceivable a generation ago.

All of the pressures arising in the world today are coming from these sources, these people who have been shaken loose from age-old custom and tradition, and from the peasant and working classes of the western nations who had been inclined to go along in contentment with relatively little of this world's goods. No government today can survive that does not respond to these pressures and no social system or social custom can survive that does not respond to them.

I do not believe that the demands for change in the *methods* of the practice of medicine that are being made articulate today are the result of agitation by any one or two "foundations" or by the agitation of a few social workers or long-haired theorists. I believe that they represent a fundamental social phenomena arising from the pressures of a changing social fabric and that we, as medical men, must give heed to these very fundamental changes that are going on.

Then, on the other hand, we have had, during the past few years, growing up about us with increasing rapidity each day, a new body of techniques, new tools for combating disease and for preventive medicine. We are seeing the marriage laws rewritten in most states to embody various forms of physical examination and blood examinations. We have seen the development of the syphilis program. We have confronting us the proposed pneumonia control program, and a vast number of other programs affecting the public health are being developed.

Today there is no machinery available for bringing to the doctor knowledge of all of these newer problems, excepting organized medicine. We must remember that the doctor has been trained to think in terms of pathology and not in terms of public health problems or socio-economic problems. To teach the doctor to begin thinking and practicing in terms of preventive medicine, sociology and eco-

nomics is as revolutionary a concept as was that of thinking in terms of bacterial causes of disease forty years ago.

The time has come when organized medicine, or at least the leadership of organized medicine, should begin to assert its leadership and point the way to the masses of physicians in this country. Of course, there is certain danger that both leaders and the masses of doctors may be stampeded into too rapid transition. On the contrary, if things are permitted to drift as they have done in the past, the very pressure from society will force a change that perhaps may not be so pleasant, and then, too, we must consider our responsibility to those who have entrusted us with leadership, so that we may not be accused of having failed to apprise them of dangers in time to do something about them.

With this thought in mind, the Indiana State Medical Association has evolved a program that will attempt to correlate all of the activities of preventive medicine into a definite scheme of education that may be carried down through the county medical societies. It may be briefly outlined, as follows: Each month in THE JOURNAL of the Indiana State Medical Association there will be stressed a certain disease. The leading editorial will deal with this. There will be papers from various specialists in the field of this disease. The public health and the sociologic and economic aspects of the disease will be discussed and during the same month the county medical societies will set aside one program to be devoted to a discussion of this particular disease as it relates to the local community. The association is attempting to use its already existing committees in the development of this program. The special organizations have all been contacted and are entering whole-heartedly into this program.

It is hoped that this will be a continuous program from month to month and from year to year, and that it is not just a flash-in-the-pan sort of thing that will have only a temporary effect. The writer believes that it will be possible to get the maximum effect of such a program only if the complete co-operation of the county medical societies is obtained, and that each of these problems has such an intimate local aspect that it must be presented through the local group. Thus far the outlook for the program is most promising. The cooperation of the committees of the association, the public agencies, such as the Department of Health and the Department of Public Welfare, the Universities, the Medical School and the special societies in the state, has been most inspiring.

Arthur M. Baker

Pneumonia

TEN IMPORTANT QUESTIONS ABOUT PNEUMONIA

1. Should a pneumonia patient be moved to a hospital?

A patient suspected of having lobar pneumonia should, if at all possible, be moved to a hospital.

2. Why?

First, to verify diagnosis at the earliest possible time.

Second, to determine the type as quickly as possible.

(These two considerations are especially important in the administration of serum since the sooner it is given the better are the results.)

Third, because facilities are available for combating emergencies that may arise.

Fourth, because supportive treatment such as oxygen, sucrose, etc., is more convenient.

It is assumed that this discussion applies to lobar or type specific pneumonias.

3. When in the course of the disease do physical findings occur?

Often physical findings are lacking for two or more days. The diagnosis in such instances must be made on history of a chill with pain in a side of the chest, cough, fever, and possibly bloody or rusty sputum—and at times leukocytosis. If suspected, an x-ray plate and sputum examination are imperative for confirmation.

4. Is serum therapy in pneumonia a practical procedure?

A careful study in clinics with abundant material leaves no doubt that serum therapy markedly lowers death rates and morbidity in patients with type I and, to a lesser extent, type II. Evidence indicates that specific type serum therapy in certain other types as IV, V, VII, VIII, XII and XIV is of very distinct value, though the number of cases from which statistics are derived is much smaller. It would seem, therefore, that specific type serum therapy for the above named types is sound therapy. It is hoped that serum for the other types will prove to be as satisfactory.

5. Is the cost of serum therapy prohibitive?

The cost of serum for an adequately treated case of pneumonia will vary depending upon bacteremia and other features but usually will not exceed \$50 to \$75. If one compares this cost with the cost of the management of an average surgical procedure in the hospital, it is found not to be so great. That becomes especially apparent when one considers the very high death rate of lobar pneumonia.

6. Is typing of the organism a practical procedure in the average case of pneumonia?

Yes. Technicians are available in practically every part of the state who are competent to do this work and as the demand for this service grows, typing will become even more available.

7. How is serum properly administered?

It should always be given intravenously because it is much more effective. Due care must be taken to determine whether the patient is sensitive to the animal serum to be used, that is, horse serum and rabbit serum. History of sensitiveness to serum administered previously or allergic manifestations by the patient toward the animal from which the serum is derived would constitute evidence of hypersensitiveness. Skin tests and ophthalmic tests of a 1 to 10 dilution of the serum with wheal reaction in the former instance or definite redness of the conjunctiva with lacrimation in the latter constitutes definite evidence of hypersensitivity. Even with negative evidence of hypersensitivity throughout, there will be a few individuals who react unfavorably to serum. Therefore, the first dose must be given very slowly and should not be more than 10,000 units. Adrenalin must be immediately available for use and the patient should be continuously observed for at least two hours after serum administration.

8. Are there any contraindications to the use of serum?

Evidence of hypersensitivity constitutes a definite contraindication. It should not be given to a patient having pulmonary edema until this emergency has been successfully met. Care must be exercised in giving serum when the temperature is quite high, for example, 105 degree F., for in case of a thermal reaction the temperature may rise high enough to be dangerous in itself.

9. Is chemotherapy of any value in pneumococcal pneumonia?

There is no evidence that sulfanilamide is of any value against any type of pneumonia. The drug may actually do harm by possibly decreasing the oxygen-carrying property of the blood. In streptococcal pneumonia, it is understood that sulfanilamide is of distinct value.

10. Should other forms of therapy be used?

All supportive measures found to be sound, such as oxygen administration, fluids, foods, good nursing, symptomatic treatment, should by all means be used as heretofore.

STATE MEDICINE—A LAWYER'S VIEWPOINT

L. L. BOMBERGER

President, Indiana State Bar Association

Hammond

There is one subject upon which all free people should have a superiority complex. They should esteem their form of government above all others. Government, whatever its form, should be efficient, and to be efficient it must be stable. Stability rests upon confidence, which again is begot by faith. Americans, therefore, should hold that our form of constitutional government is the best that can be devised for us. While it is always wise to consider and sometimes to adopt minor changes in basic principles of government, yet in its main outlines, it must have stability. The separation of the three departments of government, a system of checks and balances, an independent Supreme Court, are the cardinal principles of our system, and, regardless of assaults upon them, seem hitherto to have been thoroughly entrenched in the convictions of our people. Moreover, there is another principle which has enjoyed great respect in America and lies at the foundation of individual freedom under the law; that is, the least possible government consistent with law and order and fair opportunity to all.

The ideas above expressed do not meet with universal approbation in these days. There may be found an active group ready to challenge and destroy every one of them. The separation of the three departments of government is abhorrent to these people. The idea that there should be checks and balances is impatiently denied; that we should have an independent Supreme Court is anathema to them. Finally, the traditional theory that the least government is the best government is arbitrarily thrown to the scrap heap and there is urged as a substitute the very antithesis of the thought—the government must have a hand in everything.

It is a task that demands some courage and certainly matured thinking for one to undertake in these turbulent days to assert with confidence his idea of the trends on any public question. Nevertheless, any contribution that will promote a dispassionate analysis of the proposed new order of things may serve a useful purpose.

The president of one of the great universities said at a recent convocation that the American people have forgotten to reason on any subject; that they do not have judgment because they refuse to reason, but their actions are responsive only to emotionalism. He pleads earnestly for a re-enthronement of reason.

Practically all that is said for the socialization

of medical service rests upon emotional reactions; naturally much that is said against it has the same basis. Aside from that of spiritual advisor and communicant, there is probably no other relation which men sustain to one another which lends itself so readily to the emotional appeal as that of physician and patient.

It is easy to depict suffering; it is, alas, too easy to find it. It appeals to our sympathies and, therefore, is not only described with great ardor and intensity, but is calculated to work the hearers into a state of fervent resolution little short of a religious revival. This is only too apparent in most of the arguments for enlisting physicians in the public service.

It is easily seen, therefore, why the medical profession should be singled out among all the relations that arise in Society. But it is to be remembered that the three great professions are and always have been in a sense in the public service. No one has ever been denied medical, legal or spiritual aid because of poverty or social station. No one can fairly say that such inhumanity is either imminent or threatening. The minister does not discriminate; the physician has always answered the call of distress; the lawyer may be commanded by the court to give his services without compensation, and this is usually to one who has no means whatever to pay.

Indeed, the members of the legal profession are, and from time immemorial have been, subject to public control. They are officers of the courts and subject to their control and management. While they have liberty to contract with clients as to their compensation, yet if they are oppressive or unjust, the courts may finally determine it for them. They may be, and frequently are, called upon to render valuable service without money and to give much time without compensation.

MEDICAL REFORMERS

The impulsive reformer of the medical profession may seize upon this as a precedent for what he is attempting to do in the field of physical welfare, but the parallel does not hold. With few exceptions, arising when the court finds that someone must have legal aid without ability to pay for it, lawyers may choose their clients or, more practically speaking, clients may choose their lawyers, and with rare exceptions the compensation is agreed upon between them. The public has no interest in the matter and apparently has not yet undertaken



L. L. Bomberger

to interfere except in isolated cases such as the prosecution of claims for veteran's relief and under certain workman's compensation laws. Moreover, the administration of justice is allocated to one of the independent branches of government, that is the judicial branch, and lawyers are but officers therein. So long as they deport themselves correctly and deal honestly with clients and others, no one interferes with them and no one attempts to limit the manner, character or compensation of their services by any pre-determined scale or schedule. Local Bar rules, voluntarily agreed upon, do not contradict this statement.

No advocate of socialized medicine has attempted to deny what obviously he must admit, namely, that the aggregate of human suffering in America for any period by reason of undernourishment, lack of sufficient clothing and shelter exceeds by many fold that which arises out of inadequate medical or surgical care, at least that care to which the afflicted individual would submit if he were financially able. While conditions in a Utopia giving free medical care to all may not be accurately forecast, yet it is not an unfounded assumption that much of the lack of proper medical and surgical care today arises out of a choice to spend income for other things. This is especially true since the advocates of socialized medicine usually point to the so-called middle class as the greatest sufferer. This is the class of moderate incomes; here are those who are not destitute, who work, earn and spend. It is a notorious fact that most of this group who lack medical care deliberately choose their fate. It is the group which contains the largest percentage of those who must "keep up with the Joneses." Clothing, automobiles, radios, other forms of entertainment come first.

No one denies that in the other two groups, the wealthy and the poor, there is little if any complaint. The former buy what they want when they want it, and pay for it. The latter are protected by Society from severe want of any of the necessities—they are sheltered, fed, clothed and furnished medical and surgical care, all at public expense.

MEDICAL CARE ONE OF MANY NECESSITIES

If the State is to set up a system of caring for the sick in the great middle class, why not organize for their aid with respect to the prime necessities of life? It would seem just as logical to impress all purveyors of food and all clothing merchants with some form of government control so that the man who is to have a course of socialized medicine shall first be properly clothed and housed at public expense. Is not the difference, at least in great measures, found in the lack of the emotional appeal already referred to? But who can assure us that the accomplishment of one will not lead to attempts in others, and finally, in all relations?

When one needs legal aid, the court provides it as a part of his judicial deliberation and decision. There is no fanfare nor blare of trumpets. When

the State finds it necessary to provide food, clothing or shelter for the indigent, this service is performed in a great part without undue emotional agitation, but as a matter of course. The same thing is apparently true with respect to medical and surgical aid now furnished at public expense. The grocer and the clothing merchant are free to buy and sell in an open market. They may choose whom they will patronize and likewise select their customers. The lawyer, as heretofore said, has similar freedom.

What, then, is the reason for an attempt to regiment physicians and surgeons as functionaries in a totalitarian state? Naturally those who would change the system of medical service turn first to the conduct of the profession itself for the reasons they advance in support of the change; they dwell upon unprofessional conduct of certain doctors. One of the charges is that too great a percentage of the average income is required for medical and dental service. Another, that the great middle class suffers; that not sufficient attention is given to preventive measures; that too many untrained pretend to be specialists; that no central authority now exists to compel obedience by patients. Finally, they point to the high grade of the medical officers of the army and navy as compared to the average civilian physician, and clinch the argument by pointing to the public school system and saying that the subject of health and medical service should be treated in like manner.

SCHEMES OF CONTROL

A critical examination of the schemes of control proposed need not concern itself with the milder measures, for it may be assumed that the agitators will stop at nothing short of the ultimate, although the wide range of schemes proposed convinces one that there is an utter lack of reasoned conclusions. Their culmination rests in complete government control of the profession, not even limited as proposed in the Lewis Resolution. This conspicuously reflects the attitude of a military dictatorship. Physicians and surgeons are declared by its terms to be in public service and are compelled to function professionally whenever called upon. Moreover, their fees are to be controlled by the Social Security Board. This far exceeds peace-time military control of our citizenry. It actually drafts all physicians into government service. Anyone is permitted now to enter or refrain from entering the regular army. If he voluntarily enters, he knows what his compensation is to be. There are obvious characteristics of military service which clearly distinguish it from all other avocations. One of these is its demand for the full time of those engaged in it, and the physician, it is proposed, shall have no private practice; at least if he has, it is to be subordinated and compelled to give way at all times to the public demand, for being in the public service means that public demands take precedence. This is the exact end demanded by

one of the writers defending state medicine.* There is every reason to assume that if the protagonists of these measures accomplish their ultimate purpose, they will completely eradicate the physician with private practice just as fully as the employees of the post office department are exclusively paid and controlled by the government even though they handle privately mailed and addressed letters. Power is never content, but feeds and grows upon power. The field is broad and tempting.

To the contention that too great a percentage of the average income is required for medical and dental service, the answer of the American Medical Association seems to have made complete refutation. The Association has pointed out that men generally choose the manner in which they budget their expenses, and usually where one denies himself or his family proper medical attention, it is found that he is indulging in many things he could readily do without or should subordinate to medical care.

If insufficient attention is given to preventive measures, they will not be remedied by forcing all physicians into the public service. It appears to the layman that medical activities are fairly well apportioned according to the needs. There are great research laboratories whose experiments and conclusions are open to the whole profession. There seems to be no more reason why physicians generally should indulge in research than that every lawyer should write a law book, or every music teacher be required to write a symphony.

If too many untrained pretend to be specialists, that is a matter for regulation. No reason suggests itself why, if the State has power to license physicians, in any event, it should not have power to prescribe and enforce additional regulations for permitting the general practitioner to classify himself as a specialist. Socialized medicine is not indispensable to accomplishing this purpose.

REGIMENTATION FOR DOCTORS AND CITIZENS

The argument that there is no central authority to enforce obedience discloses the utter abandonment to socialism of those who propose the new system. It means that not only will the government control the physician and his practice, but that it will regiment all the citizens and in some manner not openly described by the unpleasant word used to call soldiers to the colors, nevertheless, will actually draft all citizens into the health service. Everyone will be obliged not only to receive medical examination and care, but will be compelled to obey the doctor. Certainly this is despotic in the last degree. The power to compel obedience implies the power to punish for refusal to obey. So it may be concluded that the late experiment of putting men in jail for handling or having liquor was a May Day Festival compared to what is to come if they

refuse to submit to tonsillectomy or neglect to take the spring tonic prescribed by the physician in uniform. Enforcement will mean a policeman with every pill box and a government spy at every sick bed.

Then, if it be conceded that the personnel of the medical service in the army and navy averages higher than that of the private practitioner, the answer may be found in the more rigid examinations the former are required to undergo, thus eliminating the less intelligent. Nevertheless, it is by no means conceded that the entire upper strata of the pyramid are occupied by those in military or naval service. It is a matter of selection. It is a matter of common knowledge that the staff of a given hospital in a large city may be far superior to the staff of another. Finally, the fallacy of this argument lies in the fact that if all physicians are in the government service, the average of intelligence and ability is no longer measured by medical officers of the army and navy but is immediately calculated on the entire profession. The result is not to raise the standard but to dilute and lower that of those employed by the government, because the good, bad and indifferent are all in that service.

Of course, unworthy persons slip into the profession and their conduct justifies all of the criticism made. This is no reason for wholesale condemnation. Such men are found in every profession. They are a constant source of irritation, supervision, frequent discipline and punishment by the reputable members. Obviously, they are a small minority. To say that because of their short-comings all physicians must become government employees is to adopt a form of vicarious punishment which is intolerable in civilized society.

NO PARALLEL IN SCHOOL SYSTEM

But the final and what is apparently offered as the clinching argument is that the public school system furnishes a conclusive parallel and that its history is an irrefutable argument in favor of putting physicians exactly where school teachers are. But there are many thousands of teachers in private schools, instructing upwards of two and three quarter millions of students of all grades. No one has yet said to the teacher that when he finishes his professional course he is immediately in government service. He may seek to enter the public school system or engage in private teaching, at his option. Socialized medicine would leave no such choice to medical students and graduates. They shall not even be allowed the freedom of choice that is permitted to graduates of West Point and Annapolis.

But the parallel is lacking. It is the pupils in our schools, not the teachers, that constitute the involuntary portion of their personnel. The State has seen fit for its own perpetuation to educate all its citizens to a degree. This is a lawful function of public authority. It is declared in the Constitution of Indiana that:

* G. W. Haigh, *New England J. Med.* 202:1078. "The functions of the civilian physician become identical with those of the naval medical officer."

"Knowledge and learning, generally diffused throughout a community, being essential to the preservation of a free government; it shall be the duty of the General Assembly to** provide, by law, for a general and uniform system of Common Schools."

But it is nowhere declared that all teachers are ipso facto public servants. If the State were to say that everyone qualified to teach school must enter the public school system and also say that every individual must have medical examination at certain intervals under penalty for failure to obey, then the public school system and socialized medicine would be more nearly parallel. This would mean that if every qualified teacher and every qualified physician is compelled to be and is in the public service, then every citizen of the State is also in the public service in the sense that school children are, for he is compelled to accept medical attention from the State even as children receive mental training. This is totalitarianism indeed with respect to these two subjects. It is an easy step then to include the lawyers, the merchants and all others because none of us can live unto ourselves. The theory behind it all must be that when we contact others in earning our daily bread we become subjects for complete control by the State. If the theory applies to one relation it applies to another and embraces every form of human conduct.

Of course, the State cannot compel all teachers to be in the public service. In fact it cannot compel parents to send their children to the public schools. That question has been settled probably for all time by the Supreme Court of the United States.* The Court has said that a parent may patronize a parochial school if he sees fit. This necessarily implies that teachers are free to enter private service. The public school system furnishes no precedent for socialized medicine. Moreover, in the light of the private school decisions of the Supreme Court, grave doubts may be entertained as to the constitutionality of proposed plans of socialized medicine.

But it is said the State is interested in the health of its citizens. This is true, and if for no other reason, because the State may need healthy soldiers for its own defense.

But bodily impairment and disease more frequently arise from, rather than do they cause, ignorance and neglect of simple rules such as those of hygiene and nutrition. Illness is apt to be the result, not the cause, of a subnormal life. The solution lies in education of the masses of people rather than putting the physicians under semi-military rule. Nothing proposed by way of regimentation of the medical profession offers escape for the poor white of the South and his dependence upon snuff and bitters, or salvation from the nation-wide credulity that heeds radio ballyhoo and

other patent medicine advertising. It does not seem to have occurred to those who would take the doctors in hand, that the evils they are seeking to alleviate are not caused by the medical profession, but in the main by ignorance and suggestion, especially the vicious circle of auto-suggestion. Nor do they see that there is an avenue of relief by way of legislation to protect the foolish victims of hoaxes which the medical profession most earnestly denounces and combats.

Of course, there will always remain the problem of the impoverished. They have always been a problem. They are now cared for at public expense. This is wise and humane. Such physicians as wish to become salaried employees of governmental agencies find the field open to them and doubtless are content when they enter it. At any rate, they are free to leave it.

This discussion has avoided a statement of the physicians' position on this question. It is not designed as a defense of a worthy, sacrificing and enduring profession. If socialized medicine is best for the people, the physician will be obliged to bow to it, but it may be predicted with all confidence that if that day arrives, it will be through a leveling process that has taken individual incentive, enterprise, ambition and triumph out of the hearts of all our people and forced us into the leaden rhythm of the State's blighting goose step.

There are definite and disturbing signs that self-reliance is on the way out. We are taking soundings in the era of irresponsibility. The extent to which, as a nation, we enter it, inevitably to pass later into its sure successor, the era of despair, depends in no small measure upon the haste and abandon with which we experiment with such nostrums as state medicine.

Of course, it is possible for America to change its fundamental law as embedded in its traditions and written in the Constitution so as to put the entire medical profession into the public service, but the conclusion is inescapable that in addition to numberless other evils, this will produce a vast army of malingerers and hypochondriacs. It can be done; but it is not the American way.

5248 HOHMAN AVENUE.

IN THIS DEPARTMENT NEXT
MONTH THERE WILL APPEAR
AN ARTICLE ON BANKING
BY AN OFFICIAL OF THE
INDIANA BANKERS ASSOCIATION
IT WILL BE VALUABLE TO YOU.

* *Pierce vs. Society of Sisters*, 268 U.S. 510; *Farington vs. Tokushige*, 273 U.S. 284.

SECRETARIES' CONFERENCE AND NORTHWEST REGIONAL CONFERENCE

"If there ever was a time when each medical society should have an active, functioning organization, and the members should act in unison, it is now," said Dr. Olin West, general manager and secretary of the American Medical Association, at the Northwest Regional Conference in Chicago, Sunday, February thirteenth.

Dr. West's statement brought to a well-worded conclusion the formal discussion of a two-days' conference in Chicago which was attended by some fifty physicians from Indiana. The first day's conference was held at the A.M.A. headquarters, preliminary to the Northwest Regional Conference, and was an all-Indiana affair. County medical society secretaries and officers gathered at the A.M.A. building during the morning hours in groups of six to ten, were taken on a tour of inspection of the A.M.A. building, and each visitor was enabled to see and understand, many for the first time, the tremendous amount of work that is carried on at the A.M.A. headquarters. The Indiana physicians were guests of the A.M.A. at a luncheon at the Medina club where the Indiana doctors had an opportunity to meet and discuss their problems with various heads of departments of the American Medical Association, many of whom they had corresponded with but never had seen face to face.

INDIANA SECRETARIES' CONFERENCE

The conference proper was called to order at two o'clock in the afternoon by Dr. A. M. Mitchell, of Terre Haute, chairman of the Indiana Secretaries' Conference. Following an address of welcome by Dr. Herman Baker and a statement read by Dr. L. P. Harshman, of Fort Wayne, from Dr. E. M. VanBuskirk, of Fort Wayne, president-elect of the Indiana State Medical Association, the following papers were presented:

"Indiana's Mental Hygiene Program for Children." By H. B. Mettel, M.D., Indianapolis, director, Bureau of Maternal and Child Health, Indiana State Board of Health.

"County Medical Society Journals and Unethical Advertising." By P. E. Yunker, M.D., Evansville.

"County Health Education Exhibit." By A. M. Mitchell, M.D., Terre Haute.

"Relationship of the County Medical Society to the Community." By B. M. Taylor, M.D., Portland.

"Round Table Discussion of Local County Medical Society Problems," by county medical society secretaries.

"Legislative Doings." By Norman Beatty, M.D., Indianapolis.

"Indiana's Public Health Problems." By V. K. Harvey, M.D., director, Indiana State Board of Health.

Dr. A. M. Mitchell was re-elected to serve as chairman for the Secretaries' Conference in 1939.

Additional talks were made by Dr. Olin West, Dr. Morris Fishbein, Dr. R. G. Leland, Dr. W. W. Woodard, Dr. A. M. Hayden, Dr. E. A. Meyerding, former secretary of the Minnesota Medical Society, and Dr. W. S. Leathers, dean of the Vanderbilt University Medical School. Dr. Leathers stated that the preventive medicine campaign as inaugurated in Indiana was in his mind one of the outstanding progressive medical movements in the country today.

Representatives from the Cooperative Medical Advertising Bureau, Mr. Will C. Braun and Mr. H. L. Sandberg, also were present at this meeting.

NORTHWEST REGIONAL CONFERENCE

With the general subject under discussion of "Medical Care for All the People," the Indiana State Medical Association was host to the 167 physicians, most of them officers in their county or state medical societies, at the Northwest Regional Conference at the Palmer House, in the Grand Ballroom, on Sunday, February thirteenth.

Representatives from sixteen states took part in the meeting whose presiding officer was Dr. R. L. Sensenich, of South Bend, past president of the Indiana State Medical Association and at present a member of the Board of Trustees of the American Medical Association.

Indiana's contribution to this part of the program was a detailed discussion of the Indiana preventive medical care educational program which was discussed by Dr. H. M. Baker, president of the State Association, Dr. Frank Gastineau, of Indianapolis, and Dr. A. M. Mitchell, of Terre Haute. Following is a list of other papers on the program:

"Rural Medical Care in Wisconsin." By J. C. Sargent, M.D., president Wisconsin State Medical Association.

"Physical Rehabilitation of the Indigent." By Mr. Joe Savage, Charleston, West Virginia, secretary of the West Virginia State Medical Association.

"Group Hospitalization in St. Louis." By Carl F. Vohs, M.D., St. Louis, Mo., secretary of the Northwest Regional Conference.

"The Oakland County Medical Plan," by R. G. Tuck, M.D., Pontiac, Michigan.

"Medical Care for All the People" was discussed by R. G. Leland, M.D., Chicago, director of the Bureau of Medical Economics of the American Medical Association; by Ernest E. Shaw, M.D., Indianola, Iowa, for the Iowa State Medical Society; and by Mr. Jack Austin, Wichita, Kansas, executive secretary of the Sedgwick County Medical Society.

Dr. Carl Vohs, of St. Louis, Missouri, was elected president of the Northwest Regional Conference for 1939, and Dr. L. F. Foster, of Bay City, Michigan, was elected secretary for 1939. The Missouri State Medical Society will be host for the 1939 meeting.

Indiana physicians who attended the conferences are: J. W. Bowers, R. L. Hane, L. P. Harshman, C. B. Parker, Lyman T. Rawles, J. L. Wyatt, Fort Wayne; W. W. Holmes, Logansport; J. M. Palm, Brazil; John H. Bowles, Donald Covalt, Muncie; J. P. Gentile, New Albany; A. E. Stinson, Rochester; O. M. Graves, J. L. Morris, Princeton; Harold E. List, Marion; N. K. Forster, E. M. Shanklin, Hammond; Frank H. Mervis, H. A. Vore, East Chicago; C. M. Jones, Whiting; M. A. Austin, D. S. Quickel, Anderson; Norman M. Beatty, C. G. Culbertson, Frank M. Gastineau, V. K. Harvey, H. B. Mettel, C. A. Nafe, Indianapolis; George Dillinger, French Lick; Carl M. Davis, Valparaiso; R. Lee Smith, Osgood; David A. Bickel, P. J. Birmingham, F. R. Nicholas Carter, J. V. Cassady, A. S. Giordano, J. W. Hilbert, H. D. Pyle, R. L. Sensenich, South Bend; James B. Maple, Sullivan; J. C. Burkle, Lafayette; Herman M. Baker, W. E. Barnes, Philip E. Yunker, Evansville; A. M. Mitchell, J. J. Moorhead, Terre Haute; O. G. Brubaker, North Manchester; A. M. Brenner, Winchester; R. B. Engle, Farmland and F. H. Coble, Richmond.

THOMAS A. HENDRICKS, *Executive Secretary*,
Indiana State Medical Association.

Under the Capitol Dome

The cost of treatments for syphilis or other communicable diseases administered to residents of Indiana towns is chargeable to counties, not the towns, under the new public health set-up, according to an opinion delivered to Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, by Attorney General Omer S. Jackson.

The attorney general said that, "If a part time county health officer authorizes treatment for syphilis or other communicable disease the county pays the expenses thereof, whether the person lives in a rural section or within the boundary of a town."

The opinion also ruled that counties are to pay any other expenses attendant as a result of quarantine, such as care for indigents when the breadwinner is quarantined, when the quarantined person lives in a town or a rural section.

The opinion was an interpretation of the law, effective at the beginning of this year, which provides that there shall be a part time health officer in

every county of the state. The act gives the county health officer jurisdiction in all towns within his county and, at the same time, abolishes the office of town health officer.

The opinion pointed out that no provision is found in the law charging expenses against the towns, and added that, "A town budget or appropriation for the payment of expense of a health department of said town could not be approved. . . ."

Another opinion issued to Dr. Harvey interpreted the salary division of the law. It held that county commissioners could not fix salaries of county health officers in excess of the three cents per capita of county population set out in the Act. The attorney general ruled that the minimum salary of a part time county health officer should be \$200 and the maximum \$1,800 a year. Between these extreme figures the salary is determined on the per capita basis, less the population of cities within the county having a separate health officer.

In another opinion which the attorney general issued to Dr. Harvey a question which has arisen in a section of the state where no state or county tuberculosis sanatorium is at all close was discussed. Possibility of Indiana counties contracting with nearby sanatoriums, but in another state, for the care of their tuberculosis patients as they contract with county sanatoriums in the state had been discussed.

The attorney general held that the Indiana counties may not contract with sanatoriums in another state for the care of their indigent tuberculosis patients. It was clearly the implied legislative intent to provide a means for the care of indigent persons afflicted with tuberculosis within the boundaries of the state, the attorney general ruled. The law authorizes county commissioners of counties where no suitable provisions have been made for care of indigent tubercular residents to contract with trustees of "any public hospitals" for their care upon such reasonable terms as may be agreed upon.

* * *

Dentists may take x-ray pictures of the extremities for physicians, provided the dentist does not attempt a diagnosis nor suggest any kind of treatment, according to an opinion issued by Omer S. Jackson, attorney general.

The opinion was written to Dr. J. W. Bowers, secretary of the Indiana State Board of Medical Registration and Examination. The practice, the opinion said, is neither unethical nor illegal. "The answer to your second question (Is such practice illegal?) will be strictly limited to the legality of a dentist in taking X-ray pictures of the extremities for physicians, such dentist neither attempting a diagnosis nor suggesting any kind of treatment," the opinion said. "The answer will also be confined to cases where the X-ray was taken at the request of the physician for diagnostic purposes, and not as a means of treatment in itself."

(Continued on page 154)

Deaths

Edmund Dougan Clark

1869-1938

PHYSICIAN—SOLDIER—FRIEND

In all of these major activities of a useful life, he fulfilled the highest expectations of those who fell within the sphere of his influence.

As a physician, he grasped with enthusiasm each opportunity to relieve the ailing, to instruct the student, to uplift the standards of professional conduct.

As a soldier, he volunteered early, at great personal sacrifice, and organized an over-seas hospital which earned the praise of the entire army, returning with the gratitude of his patients and the respect of his associates.

As a friend, his hand and his heart were always open. No appeal ever went unheeded.

Well might we quote from the epitaph of another soldier:

"He at all times and everywhere gave his strength to the weak, his substance to the poor, his sympathy to the suffering, and his heart to God."

He has "wrapped the drapery of his couch about him and lain down to pleasant dreams."

Ave Atque vale!

(This memorial was prepared by a committee for the Indianapolis Medical Society.)

RETIRING PRESIDENT OF ASSOCIATION

EDMUND DOUGAN CLARK, M.D., of Indianapolis, president of the Indiana State Medical Association in 1937, died February sixteenth, from pneumonia.

Born at Economy, Indiana, November 28, 1869, Dr. Clark attended school in that community and at Earlham College in Richmond

and graduated in 1891 from Bellevue Hospital Medical College in New York, later doing post-graduate work at Johns Hopkins and in foreign clinics in Vienna, Breslau and Berlin. He began his surgical practice in Indianapolis in 1896 and for more than forty years was an acknowledged

leader in his field. He was a member of the faculty of the Indiana University School of Medicine from the time of its organization and was a member of the faculty of the old Medical College of Indiana before that time. For many years he had served the Indiana University School of Medicine as professor of surgery and as secretary of the faculty.

Early in 1917, Dr. Clark enlisted in the medical service of the United States Army and served as a major in France and as medical commandant of base hospital number 32. He was elevated to the rank of lieutenant-colonel and re-

mained in command of the unit until his return to the United States in 1919 when he was given the rank of colonel in the Medical Reserve Corps, which commission he held at the time of his death. For his services, Dr. Clark was cited by the French government and received a personal citation from General Pershing.

Dr. Clark served as president of the Indianapolis Medical Society in 1931 and was a member of the American Surgical Association, the Southern Surgical Association, the Western Surgical Association, and was a Fellow of the American Medical Association and of the American College of Surgeons. He was also a director of the Columbia Club in Indianapolis.



E. D. Clark, M.D.

Joseph Ellsworth Moser, M.D., physician and surgeon, of Bloomington, died February first, of heart disease, after an illness of a few weeks. Doctor Moser was fifty-nine years old.

Dr. Moser was a native of Brown county, and taught school in the rural areas for several years as a young man. He attended the State College of Physicians and Surgeons in Indianapolis from which he graduated in 1907. He began his practice in Monroe county and had practiced in Bloomington for nearly twenty years. He served in the World War with the medical corps, attaining the rank of captain.

Dr. Moser was a member of the Monroe County Medical Society and the Indiana State Medical Association and was a Fellow of the American Medical Association.

Arthur S. Ayres, M.D., ophthalmologist and otolaryngologist, of Indianapolis, died January nineteenth, aged seventy-six. He attended Amherst College and the College of Medicine of the University of Vermont in Burlington from which he graduated in 1888. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

Oliver P. Worley, M.D., of Hagerstown, died January twenty-seventh after a long illness. Dr. Worley was eighty-one years old. He was a graduate of the Physio-Medical College of Indiana, Indianapolis, in 1886, and practiced at Kokomo for several years before going to Hagerstown in 1918.

Henry T. Dixon, M.D., of Evansville, died January thirteenth, aged eighty-seven years. Dr. Dixon retired from active practice three years ago. He had served as secretary of the Evansville board of health from 1897 to 1901. He graduated from the University of Louisville, Kentucky, in 1879.

George H. Kister, M.D., of Evansville, died February first, aged sixty-seven years. Dr. Kister died as the result of a fractured skull suffered in an automobile accident. He was a graduate of the University of Louisville, School of Medicine, Louisville, Kentucky, in 1897.

William H. Cohee, M.D., of Marietta, died January nineteenth, aged seventy years. Dr. Cohee had practiced in Shelby county for thirty-six years. He began his practice in Elizabethtown and later

moved to Indianapolis where he remained for a while before starting his practice in Marietta. He was a graduate of the Medical College of Indiana, Indianapolis, in 1898.

Benjamin B. Griffith, M.D., ophthalmologist and otolaryngologist of Vincennes, died January sixteenth, aged seventy-six years. Dr. Griffith had practiced in Vincennes for more than thirty years. He graduated from the Jefferson School of Medicine, Louisville, Kentucky, in 1882 and from the Missouri Medical College, St. Louis, in 1884. He was a member of the Knox County Medical Society, the Indiana State Medical Association and the American Medical Association.

George Carr Taylor, M.D., of Mentone, died January twenty-third, aged fifty-six years. Dr. Taylor graduated from the Chicago College of Medicine and Surgery in 1880, and was a member of the Kosciusko County Medical Society, the Indiana State Medical Association and the American Medical Association.

Lewis C. Cowen, M.D., of Rising Sun, died January twenty-seventh, aged eighty-nine years. He had retired from practice about nine years ago. Dr. Cowen graduated from the Medical College of Ohio, Cincinnati, in 1874, and had practiced in Rising Sun for nearly forty years before his retirement.

Frank J. Spilman, M.D., ophthalmologist and otolaryngologist of Connorsville, died February seventh in a hospital in St. Petersburg, Florida. Dr. Spilman was sixty-five years old. He graduated from the Medical College of Ohio, Cincinnati, in 1897, and had practiced in Connorsville for thirty-nine years. Dr. Spilman was a past president of the Fayette-Franklin County Medical Society, a member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

Lot E. Alexander, M.D., of Pendleton, died February eighth, aged eighty-four years. He had practiced in Pendleton for more than fifty-five years. Dr. Alexander graduated from the University of Pennsylvania School of Medicine, Philadelphia, in 1874. He was an honorary member of the Madison County Medical Society and of the Indiana State Medical Association and was affiliated with the Madison County society for nearly fifty years.

News Notes

The thirty-fourth annual congress on Medical Education and Licensure was held February 14 and 15 in the Palmer House, Chicago.

Dr. T. D. Armstrong has moved his office from the Michigan City Sanitarium to 404 Warren Building in Michigan City.

Miss Evelyn Bartlett, of Williamsport, and Dr. Thomas E. Ward, of Williamsport, were married January nineteenth.

Dr. N. I. Kitheart, retired physician of Columbia City, celebrated his eighty-seventh birthday, January sixteenth.

Dr. Ralph W. Kraft has moved to Hobart, where he has taken the office and equipment of the late Dr. Jacob Ader.

Dr. Sheldon S. DeLancey, of Williamsport, has been made an honorary member of the Fountain-Warren County Medical Society.

Dr. Gerald D. Timmons, of Indianapolis, has been named assistant to the dean of the Indiana University School of Dentistry. Dr. Timmons will serve as executive head of the school during Dean Henshaw's leave of absence.

Mr. Albert H. Scheidt has been promoted from assistant to the administrator to the position of assistant administrator for the Indiana University School of Medicine and Hospitals in Indianapolis.

The medical staff of the Menninger Clinic will conduct its fourth annual postgraduate course on neuropsychiatry in general practice, April 25 to 30, inclusive, at the clinic in Topeka, Kansas.

Miss Mabel Kearns, of Plainfield, and Dr. M. B. Paynter, of Southport, were married January twenty-sixth in Plainfield.

Dr. C. J. Overman, of Marion, has gone to Florida for a four months' vacation. On next April fifteenth, Dr. Overman will have completed forty-two years of general practice.

Dr. Charles M. Gibbs and Miss Selma Stephens, both of Greenfield, were married December eleventh.

Dr. W. H. Shortridge has discontinued his practice in Hobart, Indiana, and has established his office at 201½ South Chestnut Street, Seymour, Indiana.

Dr. John Hillary, of Milford, has taken over the practice of Dr. E. V. Herendeen at Silver Lake. Dr. Herendeen has gone to Rochester, Indiana, to specialize in surgery in association with Dr. Milton Leckrone.

Dr. Katherine Chamberlayne Harvie, of Richmond, Virginia, and Dr. Victor S. Huggins, of Evansville, were married in Richmond, January twenty-ninth. Dr. Huggins is practicing in Evansville in association with Dr. Pierce MacKenzie.

Dr. W. J. Norton, of Columbus, who has practiced medicine in Bartholomew county for nearly forty years, has closed his office and moved to his farm near Columbus. He will continue as city health officer and also will continue a part of his medical practice. His office in Columbus has been taken by Dr. Robert B. Hart.

The Indiana Pharmaceutical Association has accepted the resignation of its secretary, Mr. F. V. McCullough, whose place will be filled by Mrs. J. L. Weinland. The offices of the Association have been moved from New Albany to 806 Test Building, Indianapolis.

Dr. David B. Templin is associated with his father, Dr. T. B. Templin, of Gary, in the practice of medicine. Dr. George S. Greene, of Gary, who has been associated with Dr. T. B. Templin for a period of twenty years has disposed of his place in the partnership to the younger Dr. Templin.

Invitations have been sent out for the commercial exhibit of the Indiana State Medical Association to be held at the 89th annual session of the Indiana State Medical Association, October 4, 5,

and 6, at the Murat Temple, Indianapolis. Complete information and floor plan may be obtained from Mr. Thomas A. Hendricks, Executive Secretary, 1021 Hume Mansur Building, Indianapolis.

Dr. E. B. Mumford, of Indianapolis, was made treasurer of the American Academy of Orthopedic Surgeons at the national convention of that organization in Los Angeles, in January. The 1939 meeting will be held in Memphis, Tennessee. Dr. Mumford has served as treasurer for the organization for five years.

MEETING OF MEDICAL EDUCATION INVESTIGATION COMMITTEE

The committee to study medical education in Indiana will meet at the Claypool Hotel in Indianapolis, March 7, at one o'clock in the afternoon. This is the committee appointed by the president of the Association following instructions from the House of Delegates at the last annual meeting. Any one interested in the problems involved is invited and urged to appear and give the committee the benefit of his views.

F. S. CROCKETT, M.D., *Chairman*

A brochure entitled "Outline for Proposed Plan of Study of Medical Care" designed for the use of state and county medical societies has been published by the American Medical Association. Any physician in Indiana may obtain a copy of the booklet by addressing a request to Dr. R. G. Leland, Director of the Bureau of Medical Economics of the American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Dr. David G. Pugh, of Connersville, has been awarded a three-year fellowship in radiology at the Mayo Clinic where he will go to begin his work on July first. Dr. Pugh has been an officer in the Fayette-Franklin Medical society for the past year and has practiced in Connersville for three years.

The third annual postgraduate institute of the Philadelphia County Medical Society will be conducted from March 28 to April 1 and will offer an intensive study of the diseases of the digestive tract. The meetings will be held in the Bellevue-Stratford Hotel, Philadelphia. Members of the Indiana State Medical Association are invited to attend. Registration fee is \$5. Complete program may be obtained from The Philadelphia County Medical Society, 21st and Spruce Streets, Philadelphia, Pa.

The United States Civil Service Commission announces open competitive examination for the position of physiotherapy aide (\$1,800 a year) in the U.S. Public Health Service and Veterans' Administration. Applications must be on file with the U.S. Civil Service Commission at Washington, D. C., not later than March 7, 1938. Application forms may be obtained from the secretary, Board of U.S. Civil Service Examiners, at any first-class post office, or from the U.S. Civil Service Commission, Washington, D. C.

The general oral, clinical and pathological examinations for all candidates (groups A and B) for examinations of the American Board of Obstetrics and Gynecology will be conducted in San Francisco, California, June 13 and 14, immediately prior to the meeting of the American Medical Association. Application for admission to the June, 1938, group A examinations must be on an official application form and filed in the secretary's office before April 1, 1938. Further information and application blanks may be obtained from the secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

An individual claiming to represent the National Claims Statistical Bureau, with offices in New York City and Atlanta, Georgia, is reported to be traveling about the country soliciting physicians to pay him \$15 each for a listing of their names in an insurance medical directory, with the apparent understanding that they will be selected as medical examiners for certain insurance companies. The man uses the name of C. H. Gamble. It is reported that many physicians claim that they have paid out their money, receiving absolutely nothing in return. The National Claims Statistical Bureau cannot be located in either New York City or Atlanta. The National Better Business Bureau warns against this man.

An appreciation dinner honoring Mr. Arthur V. Brown, president of the Board of Trustees of the Methodist Episcopal Hospital of Indiana was given by the medical staff of the hospital, assisted by the board of trustees and the White Cross Guild, January twenty-sixth, in the Riley Room of the Claypool Hotel in Indianapolis. Approximately 700 physicians and their wives attended. Dr. Edmund D. Clark, representing the board and the staff society, presented a scroll signifying "deep appreciation and sincere friendship." Toastmaster for the occasion was Dr. William N. Wishard, Jr., and the guest speaker was Dr. J. H. J. Upham, of Columbus, Ohio, past president of the American Medical Association.

The American Board of Ophthalmology announces that in 1938 it will hold examinations in San Francisco, June 13th, during the American Medical Association meeting; in Washington, D. C., October 8th, during the meeting of the American Academy of Ophthalmology and Otolaryngology; and in Oklahoma City, November 14th, during the meeting of the Southern Medical Association. The Board has held fifty-six examinations in the past and, through 1937, has certified 1,498 ophthalmologists. In future issues of the directory of the American Medical Association, certificated ophthalmologists will be so designated in their listing. Application blanks are procurable from Dr. John Green, 3720 Washington Avenue, St. Louis, Missouri.

PHYSICIANS TO REPORT CONGENITAL DEFORMITIES

Physicians attending the birth of children afflicted with congenital deformities are required to report them to the Indiana State Department of Public Welfare, according to the amended Welfare Act of 1936.

Blank forms have been sent to each physician in the State of Indiana for use in reporting such births in accordance with the provisions of the act.

A census of crippled children in Indiana is in the process of completion and all physicians are urgently requested to give their full cooperation in this work. Dr. Oliver W. Greer, State Department of Public Welfare, 141 South Meridian street, Indianapolis, has charge of this work.

PHYSICIAN-ARTISTS AT SAN FRANCISCO

The American Physicians' Art Association, a national organization of medical men who have ability in the fine arts, will hold a *first national exhibition* in the San Francisco Museum of Art, San Francisco, California, in June, 1938. The Association already has an outstanding membership. There are three classifications for membership: active, associate, and contributing. The first annual exhibition promises to be of unusual interest with entries to be accepted (after jury selection) in the following classifications: oils, water colors, sculpture, photography, pastels, etchings, crayon and pen and ink drawings (including cartoons), wood carvings and book bindings. Scientific medical art work will not be accepted. The exhibition is not limited to first showings. All entries close April 1, 1938. Any physician interested should communicate with the Secretary of the American Physicians' Art Association, 521 Flood Building, San Francisco, California.

MATERNAL AND INFANT MORTALITY STUDY FOR INDIANA

The November death certificate questionnaires sent out from the Bureau of Vital Statistics of the Indiana State Board of Health, under the direction

of the Sub-Committee for the Study of Maternal and Infant Mortality of the Indiana State Medical Association, have been returned to the offices of the Bureau of Maternal and Child Health of the Indiana State Board of Health where statistics are being compiled. The cooperation of the medical profession has been excellent, in that the returns show an 87 per cent response. It is hoped that the percentage of returns will increase even more, as it is only by the full-hearted cooperation of the individual members of the state association that this study will be of value to the medical profession of the state.

These questionnaires are mailed from the State Board of Health offices on the 22nd day of each month. A prompt response on receipt of these forms will be appreciated by the Medical Association Committee in charge of this study.

New gifts and paid bequests aggregating more than \$65,000, given by a number of donors to aid the work of the James Whitcomb Riley Hospital for Children, have been announced by the hospital joint executive committee, financial sponsors of the hospital. The gifts and bequests came from a number of sources and from various parts of the state. Some were in the form of permanent endowments, others for immediate use as the institution heads saw fit and others for research or other specific purposes. The principal gifts and bequests reported by Mr. Carr to the committee were as follows: Mary D. Cain estate, Brookville, \$23,841.42; Dr. Orrie Ianthus Hetsler estate, Muncie, \$14,582.28; Lena M. Baas estate, Batesville, \$10,102.89; Arthur C. Newby estate, Indianapolis, \$14,699.15; Bankers Trust Company, Indianapolis, for the estate of Mary J. Proctor, \$1,000; Lizzie J. Stearns estate, Indianapolis, \$1,000; Elda Henley Shelburne estate, Zionsville, \$500; Edmund Zoller estate, Indianapolis, \$500.

SCHEDULED TRIPS TO A. M. A. SESSION

A five and one-half days' ocean voyage from New York to New Orleans on the S.S. Dixie will start the "Golfers Special" on a trip to San Francisco for the A.M.A. meeting next June. The trip will be sponsored by the American Medical Golfing Association, details of which may be obtained from the secretary, Mr. Bill Burns, 731 N. Capitol Avenue, Lansing, Michigan.

The Ohio State Medical Association invites Indiana physicians to join Ohio physicians on a special train to the 1938 session of the A.M.A. in San Francisco. The trip will be sponsored by the Ohio State Medical Association and details concerning it may be obtained from the executive secretary of the Ohio State Medical Association,

Mr. Charles S. Nelson, 1005 Hartman Theater Building, Columbus, Ohio.

AUXILIARY NOTES

The monthly dinner meeting of the Madison County Medical Society Auxiliary was held in Anderson, January seventeenth, when plans were made for a tea to be given in the newly constructed St. John's Hospital nurses' home. Mrs. H. W. Gante reported the purchase of new books for children in the hospital.

The Woman's Auxiliary of the Indianapolis Medical Society met January twenty-first in the Lilly auditorium at the Indianapolis City Hospital. A violin concert and a style show composed the program for the afternoon.

The Auxiliary to the Floyd County Medical Society held a luncheon meeting in New Albany, January seventh. The program was in charge of Mrs. Clarence Briscoe and Mrs. R. W. Harris.

FREE WELFARE SERVICES

A number of free services, including motion-pictures, speakers, literature and exhibits, are available to medical societies and conventions by the State Department of Public Welfare, 141 South Meridian Street, Indianapolis. They are of value in acquainting voluntary welfare organizations with Indiana's public welfare program, which affects over 100,000 dependent Hoosiers.

One thirty-minute movie offers a summary view of the activities of the State Department of Public Welfare. A synchronized lecture accompanies the motion-picture. Exhibits offered illustrate such welfare activities as public assistance for the aged, the blind and the dependent children, child welfare services, the Indiana merit plan for selection of state employees and the work of the state institutions. Speakers offer addresses on such timely topics as "Indiana's Convicted Criminals," "Finding Crippled Children in Indiana," "The Outlook in Indiana Welfare Work," "A Proposed Council of Community Resources," "Indiana's Child Welfare Program" and "The Financing of Public Welfare."

Communications concerning these services may be addressed to Dudley A. Smith, director, Division of Information, at the address given above.

TRI-STATE MEETING

The Northern Tri-State Medical Society will hold its annual meeting at Findlay, Ohio, April 12, 1938, at the Elks Temple. Officers of this Ohio-

Indiana-Michigan society include Dr. J. N. Kelly of LaPorte, who is vice-president. The program includes the following speakers and their subjects, beginning at 8 o'clock in the morning:

H. H. Cummings, M.D., Ann Arbor, Mich., "Treatment of Fibromyoma of the Uterus."

W. H. Cole, M.D., Chicago, "Hyperthyroidism."

Douglas Arnold, M.D., Detroit, "Pain in the Cardiac Area Not Due to Coronary Disease."

Charles Doan, M.D., Columbus, Ohio, "Myelophthisic Anemias."

Max Thorek, M.D., Chicago, "Electrosurgical Obliteration of the Gall Bladder."

Irvin S. Cutter, M.D., Chicago, "Therapeutics of Later Years of Life."

Daniel J. Davies, M.D., Cincinnati, "Hemorrhage in Pregnancy and Labor."

B. H. Nichols, M.D., Cleveland, "Evaluation of X-ray Findings in Diseases of the Stomach and Gall Bladder."

Gilbert J. Thomas, M.D., Minneapolis, "Infections Other Than Tuberculosis of the Urinary Tract."

J. S. Speed, M.D., Memphis, Tenn., "Central Fractures of the Neck of the Femur."

Following a banquet at 6 o'clock in the evening, Dr. Max Cutler of Chicago will talk on "Indications and Limitations of Radiation in the Treatment of Cancer," and Dr. Alan Brown of Toronto, Ontario, will discuss "A Consideration of Some Common Disturbances in Children Frequently Incorrectly Handled."

DR. BAHR WITH STATE HOSPITAL FORTY YEARS

On March 1, 1938, Dr. Max A. Bahr will celebrate his fortieth anniversary as a member of the staff of the Central State Hospital in Indianapolis. Dr. Bahr served as assistant physician and later as clinical psychiatrist to the Central State Hospital which position he held until 1923 when he was appointed to the superintendency which he occupies at present. In addition to his membership in numerous special societies, Dr. Bahr served as president of the Indianapolis Medical Society in 1932 and



Dr. Bahr

president of the Indiana State Conference on Social Work in 1935. He is professor of mental and nervous diseases and head of the department of psychiatry in the Indiana University School of Medicine. Dr. Bahr conducted the first clinical courses for lawyers in forensic psychiatry in America. He is the author of several volumes pertaining to neuropsychiatry and is a frequent contributor to medical journals. His splendid record of public service is an enviable one, and THE JOURNAL joins his many friends in offering congratulations and best wishes upon this anniversary.

Indiana University News Notes

In the pectin which housewives use to make jelly, Indiana University medical experts have discovered a quick-healing remedy for wounds, according to Howard W. Blakeslee, science editor of The Associated Press. Concerning this discovery, Mr. Blakeslee writes as follows:

"Pectin is a jelly that comes from boiling fruits and vegetables. Apples are rich in it. Curiosity as to why scraped apple helps to cure diarrhea led to the wound-healing discovery. It was already known that pectin was the effective part of the apple.

"These facts suggested that pectin might have the power to kill germs. An exploration of this possibility was undertaken by Dr. Edith Haynes, biologist of the Indiana University School of Medicine; Miss Grace Washburn, dietitian; Dr. Charles A. Tompkins and Dr. Matthew Winters.

"Pectin proved to be a powerful germ-killer—but only under certain circumstances. Its effects depended on the acidity or alkalinity of the place where it was applied. In acid areas pectin often wiped out the bacteria. In alkaline environment the jelly completely lost its antiseptic value.

"It proved well suited to deep, infected wounds. It was easy to apply. Pectin powder was mixed with water and had no irritating effects. In these wounds it sometimes caused complete disappearance of the dangerous streptococci and also of staphylococci.

"Pectin proved most useful for infected bone marrow, or osteomyelitis. This is a serious risk when broken bones penetrate the flesh. In some cases of osteomyelitis the recovery time was cut in half.

"The jelly remedy also has cured some other wounds, both deep and superficial, which failed to respond to common types of treatment. The pectin used in these experiments came from citrus fruits, from the white, inner layer of the skins."

Inspection of the new clinical building of the Indiana University Medical Center on West Michigan street and a dinner at the Riley Hospital for members of the Indiana University Women's Club and the Indiana University Club for Men has been set for Thursday evening, March 10.

Mrs. William B. Wilcox, president of the Women's Club, is in charge of arrangements for the alumni groups. Miss Lute M. Troutt, head of the dietary department at the Medical Center, and Miss Cordelia Hoeflin, director of the Training School for Nurses, will serve as hostesses. Dean W. D. Gatch will be the principal speaker at the dinner program.

UNDER THE CAPITOL DOME

(Continued from Page 147)

The attorney general held that taking X-ray pictures in this manner does not come within any of the provisions of the law defining the practice of medicine.

"It is common knowledge that many physicians refer certain types of their work to others who are not physicians; such as laboratory and X-ray work," the attorney general said in his opinion. "These persons may properly be called technicians, and their work is done at the instance of the physician to assist him in arriving at a correct diagnosis. There is no statute that prohibits this practice."

"No license or qualification is required in this state to take X-ray pictures or practice Roentgenology," Mr. Jackson said.

* * * *

Two members of the Indiana State Board of Medical Registration and Examination, Dr. N. E. Harold and Dr. J. W. Bowers, attended the Congress of State Medical Boards in Chicago, February 14 and 15. Ruth V. Kirk, executive secretary of the Board, also attended.

CORRESPONDENCE

MEDICAL PROGRAMS FOR 1938 SPRING MEETINGS

To Officers and Program Chairmen of Councilor Medical Districts of Indiana State Medical Association:

This is to call to your attention the announcement made by your Committee on Postgraduate Education, on page 104 of the February issue of THE JOURNAL of the Indiana State Medical Association, written by Doctor L. A. Ensminger, Indianapolis, Chairman of the Committee.

"The Graduate Committee is willing to cooperate in any manner possible with the various Councilor Districts in putting on their annual scientific programs. If the members of the Committee can be of assistance in the arrangement of the programs, selection of speakers, or in any other manner, they will be glad to do so. Funds are still available through the Indiana State Board of Health for defraying expenses of speakers on subjects involving child or maternal health, and the Committee will be glad to cooperate in getting such speakers whenever the Councilor Districts so desire."

Any Councilor District wishing to avail itself of this opportunity should write the State Committee or the State Board of Health in order that these programs may be set up at least one month prior to the date set for the meeting. Last year successful meetings were held in nine Districts.

For the types of programs held in these Districts, reference is made to the April and May, 1937, issues of THE JOURNAL of the Indiana State Medical Association.

HOWARD B. METTEL, M.D., Chief
Bureau of Maternal and Child-Health,
Indiana State Board of Health.

Societies— Institutions

VIGO COUNTY MEDICAL SOCIETY HEALTH EXHIBIT

The Vigo County Medical Society, under the able leadership of Dr. A. M. Mitchell, of Terre Haute, secretary, again led the way in public health education through the active medical society. This county society has on record the first authentic health show held under the auspices of a medical society in the United States. Their first health show was held in 1935. Since that time several out-of-state societies have sponsored similar health exhibits for the public and have claimed priority as well as recognition in this field.

The 1938 health show for the public of Vigo County was held in the Zorah Masonic Temple, through the cooperation of the Masonic Shrine of Terre Haute. On display in the assembly hall of the building were fifteen health exhibits on the following subjects: pneumonia, heart disease, maternity care, infant care, syphilis, pharmacy, diabetes, physical and health education, tuberculosis and modern hospital equipment for the care of children. These exhibits were made possible through allied health agencies, such as the Terre Haute Visiting Nurses' Association, the Vigo County Red Cross, Vigo County Tuberculosis Association, the Metropolitan Life Insurance Company, Saint Anthony's Hospital, Purdue University, Vigo County Dental Society and the Indiana State Board of Health. In addition there were general exhibits furnished by the Children's Bureau of the U.S. Department of Labor and the American Medical Association.

In addition to the general exhibits each afternoon and evening program was filled with a film demonstration, followed by a lecture by members of the Indiana State Medical Association and Indiana State Dental Association. The program followed is given below:

WEDNESDAY—January 26, 1938

- 2:00 P. M.—Motion pictures on dental health.
- 3:00 P. M.—"The Importance of Proper Dental Care"
—Mary H. Westfall, D.D.S., Dental Health Educator, Indiana State Board of Health.
- 7:30 P. M.—Motion picture, "Prevention of Pneumonia."
- 8:00 P. M.—"Pneumonia as a Chief Cause of Death"—
B. D. Rosenak, M.D., Indianapolis.

THURSDAY—January 27, 1938

- 3:00 P. M.—Motion picture, "Science and Modern Medicine."
- 4:00 P. M.—"Sex Education"—Thurman B. Rice, M.D.,
Director of Physical and Health Education, State Board of Health.
- 7:30 P. M.—Motion picture, "Man Against Microbes."
- 8:00 P. M.—"Increasing Incidence of Heart Diseases Among Men"—George S. Bond, M.D., Indianapolis.

FRIDAY—January 28, 1938

- 2:30 P. M.—Motion picture film, "Importance of Prenatal Care."
- 3:00 P. M.—"Importance of Proper Care During Maternity"—Martha Ida Hauk, R.N., Supervisor of Health Education, Bureau of Public Health Nursing, Indiana State Board of Health.
- 7:00 P. M.—Motion picture film, "Science and Modern Medicine"—A. F. Weyerbacher, M.D., Indianapolis, "Control of Syphilis."

SATURDAY—January 29, 1938

- 2:30 P. M.—Motion picture on cancer.
- 3:00 P. M.—"Cancer"—E. E. Padgett, M.D., Indianapolis.
- 7:30 P. M.—Motion picture, "Behind the Shadows."
- 8:00 P. M.—"Prevention and Treatment of Tuberculosis"—James H. Stygall, M.D., Indianapolis.

The estimated attendance at this four-day program was 5,000 persons. This exhibit should be taken as an example to other county medical societies for similar exhibits in their local counties. The Indiana State Board of Health is in position to assist any county society wishing to conduct an extensive, county-wide general health educational program. They have available a film library on many instructive health subjects, will supply the projectors and operators, and can further assist by arranging for competent speakers on the subjects selected.

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

January 15, 1938.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; E. M. Shanklin, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Upon the motion of Dr. Baker, seconded by Dr. McCaskey, the minutes of the meeting of December 5, 1937, were approved.

The monthly statements of receipts and expenditures for December for the Association committees and THE JOURNAL were approved.

Reports of the budget for December for the Association committees and THE JOURNAL were made.

Membership Report

Number of members December 31, 1937-----	2,979
Number of members December 31, 1936-----	2,841
Gain over 1936-----	138
Number of members January 15, 1938-----	1,308
Number of members January 15, 1937-----	1,184
Gain -----	124

Treasurer's Office

Report made that the annual audit of the books had been completed by George S. Olive & Company.

1938 Annual Session at Indianapolis

(1) Contract with Murat Temple brought to the attention of the Committee. This was referred to the Council for its recommendation.

Postgraduate

Dates tentatively selected by Postgraduate Committee, May 23 to 27, 1938. These dates do not conflict with dates of any district meetings as yet reported to the headquarters office.

Sickness Insurance and Socialized Medicine

Letter from Bert W. Caldwell, M.D., executive secretary of the American Hospital Association, denying that the American Hospital Association favors socialized medicine, brought to the attention of the Committee. The Committee was very pleased to have this letter from Dr. Caldwell.

Cooperative Health Association, Washington, D. C. Report upon latest developments brought to the attention of the Committee.

The Forster plan for medical services under an insurance corporation, to be set up by the American Medical Association, brought to the attention of the Committee. The Committee felt that this was a matter which Dr. Forster should place before the Council.

Copy of the paper presented by Miss Josephine Roche, former Assistant Secretary of the Treasury, in charge of public health, which was given at the recent annual meeting of the American Public Health Association, brought to the attention of the Committee. At the request of Miss Roche the American Public Health Association "took cognizance of the problem of the unequal distribution of medical service and the widespread human needs of today, and charged a special committee to study the public aspect of medical care in cooperation with the United States Public Health Service and other federal agencies in the President's Inter-Departmental Committee on Health and Welfare, the Medical Association, the American Dental Association and other appropriate bodies."

Editorial comment from New York *Herald Tribune* advocating the principles laid down by the Committee of 430, brought to the attention of the Committee, along with a copy of the resolution adopted by the Indianapolis Ophthalmological and Otolaryngological Society opposing the action of the Committee of 430.

The Committee was informed that material is being received by public welfare directors throughout the country which advocates rather guardedly the socialization of medicine.

The Committee reviewed an editorial which appeared in the *Chicago Tribune* advocating group hospitalization which, the editorial writer stated, had advanced beyond the experimental stage.

Article which appeared in The Indianapolis *Times* by the staff writer, David Dietz, headlined, "State Medicine Dispute Likely to Grow Acute," brought to the attention of the Committee.

Announcement of an evening course in Social Insurance offered by Butler University read by the Committee. One of the subjects to be studied in this course is "Health Insurance: Causes and Extent of the Problem; European Legislation and Experience on Sickness Insurance; The American Movement—Early Developments and Present Practices; Arguments For and Against Compulsory Health Insurance; Health Protection Under the Social Security Act; Other Legislative Proposals; The Future." The Committee suggested that this announcement be sent to the chairman of the Public Relations Committee of the Indianapolis Medical Society.

State Board of Medical Registration and Examination

"Modern Witchcraft?"—a survey in regard to quack practices of so-called healers, which appeared in the December Better Business Bureau *Bulletin*, brought to the attention of the Committee. Copies of this bulletin have been sent to the officers of the Association and to each county medical society secretary.

Venereal Disease Program

Compliment paid Indiana State Medical Association by Dr. Thomas Parran, Surgeon General of the United States, at a meeting in Indianapolis, brought to the attention of the Committee. Dr. Parran said, "The Indiana State Medical Society stands foremost in the

country in its assistance and cooperation in controlling and combating syphilis."

Suggestions of Dr. Parran. Dr. Baker stated that Dr. Parran suggested that machinery be devised by the State Medical Association to standardize in some manner the diagnostic laboratories in the state. Dr. Baker stated that Dr. Parran feels that something should be done by each state medical association toward approving laboratories for diagnostic purposes. Dr. Baker said, "As one talks to Dr. Parran he becomes aware of the fact that he is just as much interested in pneumonia control, for example, which also presents a great laboratory problem, and cancer control, as he is in syphilis control."

Suggestion made that the State Association pass a resolution in regard to modernizing the Indiana marriage laws. The Executive Committee felt that no official body of the State Association should pass a formal resolution in regard to modernizing the marriage laws which would call for compulsory physical examinations due to the fact that such action might be misinterpreted by the public. The Committee however felt that it could go on record stating that it would be glad to cooperate with any other organizations in formulating a program of modernization in the statutes covering marriage in Indiana.

Organization Affairs

Correspondence in regard to the Pulaski County Medical Society brought to the attention of the Committee. Although numerous letters have been written by the councilor of the Thirteenth District, in which Pulaski County is located, and upon behalf of the Executive Committee by the executive secretary, no answer has been received as yet from the officers of that society.

Annual County Society Secretaries' Conference and Northwest Conference

Programs for these meetings which are to be held February 12 and 13 in Chicago brought to the attention of the Committee. The Executive Committee approved the secretaries' conference program.

Printing of Constitution and By-Laws

Printing of the Constitution and By-Laws approved by the Committee.

Medical Economics

(1) Letter received from the American Medical Association in regard to the survey of average annual earnings of physicians. This letter stated that it is very difficult to obtain a satisfactory survey because of the varying factors which must be accounted for in such a study.

(2) Statement of policy of the Ohio State Medical Association in regard to the practice of medicine by nurses, technicians, etc., brought to the attention of the Committee and referred to Dr. Baker.

(3) Report on meeting of the inter-allied professional group at Purdue made to Committee. A formal report is to be made at the annual meeting of the Council by Dr. F. S. Crockett, chairman of the group which attended the preliminary conference.

(4) *Report Upon Surveys Made in This State in Regard to Medical Needs Requested by the American Foundation Studies in Government.* The Committee authorized the headquarters office to cooperate with this foundation in obtaining the material requested, after reading a letter upon this subject from Dr. Olin West.

(5) Coordinated program in preventive medicine of the Indiana State Medical Association outlined for the Committee by Dr. Baker. This is along the lines touched upon by the editorial concerning medical care for all the people which appeared in the January 15, 1938, issue of the *Journal of the American Medical Association*.

National Conference on Maternal and Child Welfare

Report made that the National Conference on Maternal and Child Welfare was to be held in Washington on January 17 and 18. The Committee instructed the executive secretary to see that a report upon this conference is carried in the February JOURNAL.

Crippled Children

Letter from T. A. Gottschalk, administrator of the Indiana Department of Public Welfare, in regard to reports of children born with visible congenital deformities brought to the attention of the Committee. It is understood that this same letter has been sent to each physician in the state and that each physician is asked to fill out this form in reporting cases of children born with such deformities.

Reports on Maternal and Infant Morbidity and Mortality

In accordance with the program outlined and approved by the House of Delegates physicians are receiving letters, under the State Association letterhead, asking them to report upon maternal and infant cases. The Committee suggests that an editorial note be carried in THE JOURNAL urging physicians to fill in these reports.

Mental Health

Letter from W. B. Townsend in regard to the Butler University reading clinic received from Dr. Larue Carter, chairman of the Committee on Mental Health. Upon the motion of Dr. VanBuskirk, which was duly seconded, the Committee went on record referring this letter to Dr. Carter's committee for study or any action which his committee feels should be taken in the matter.

The Journal

Report made upon subscription solicitations.

Change in Printers. With the change in printers, we are able to budget 1,200 pages during 1938, with color on the cover each month, and with a cover page of extra weight. Inside pages are of the same quality of paper as used in 1937.

Advertising Rates. The new advertising rates go into effect with the January issue; increased revenue obtained through the slight increase in rates will more than offset any loss of advertisers to date. None has cancelled because of the increase in rates but a few have cancelled or reduced spaces because of the present business "recession."

The Committee went on record approving the request of the College of Medical Evangelists for a free subscription to THE JOURNAL.

Employment of Convention Reporters. The Committee went on record approving the suggestion that it is not necessary to have medical stenographers report general meetings where papers generally are prepared beforehand and where no discussion takes place. The Committee also went on record that when guests are invited they are to be told that their papers are the property of the Indiana State Medical Association for publication in THE JOURNAL of the State Association. This was on the motion of Dr. Baker, seconded by Dr. McCaskey.

Dr. Shanklin brought up the question of publication in THE JOURNAL of articles by members of the State Board of Health. Dr. Austin made the motion that the State Board of Health be offered any amount of space within reason that it might need in THE JOURNAL but that all material that comes from the Board should be signed by Dr. V. K. Harvey as state health officer, and that all members of the department hereafter should be subject to the rules and regulations adopted by the Editorial Board concerning the publication in THE JOURNAL of no more than one scientific article during the year by any one physician.

Malpractice

(1) Information given to the Committee that the California State Medical Society is to pay indemnity as well as to give medical defense insurance up to \$5,000.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

February 16, 1938

The meeting of the Board of Directors of the Woman's Auxiliary to the Indiana State Medical Association was held January 31, 1938, in a private dining room of the Columbia Club, Indianapolis. Mrs. Fred B. Wishard, State president, presided.

Dr. Cleon Nafe, chairman of the Executive Committee of the Indiana State Medical Association, spoke on "Socialized Medicine and Quackery," and told how both might be combated.

Dr. Frank Gastineau, member of the Advisory Board for the Auxiliary, told of the state plan to control specific and contagious diseases. Articles are to be published in THE JOURNAL of the Indiana State Medical Association each month, outlining the subject and the plan of procedure. These talks were enthusiastically received by the members of the board.

The minutes of the past convention meeting of the Board, held in French Lick in October, 1937, were read by the recording secretary, Mrs. John F. Habermel, and the minutes of the Board meeting held in Evansville in March, 1937, also were read. The reading of these minutes had previously been approved.

The treasurer, Mrs. C. L. Bock, gave a report. State dues are not all in, but there is a gratifying balance on hand and all treasury affairs are in excellent condition, with books expertly kept according to national recommendations.

In spite of threatening weather and long distances to be traveled by some, there was a good attendance. Reports were read by committee chairmen of Organization, Legislation, Public Relations, Hygeia, Program and Pioneer Memorial committees. While there were only two county presidents present, reports were made from six counties. All reports showed interesting activities in each county with an increase in membership in most units.

Mrs. C. V. Rozelle, corresponding secretary, reported having written several letters, as directed by the state president.

Mrs. E. D. Clark, chairman of the National Legislative Committee, was present and made helpful suggestions.

A motion was made, seconded, and carried to appoint a committee to meet with the Advisory Board in the near future for the purpose of discussing plans for further organization in the state. Mrs. Clark, Mrs. George Dillinger and Mrs. Morton were asked to serve on this committee.

Because of the lack of time, we were unable to discuss many things pertinent to our organization. At our next Board meeting, we will discuss the advisability of publishing a new year book, and also the changing of the length of term of office for the president. It seems advisable to have the president serve two years rather than one year as president-elect and one as active president.

The meeting was adjourned at 4:30 p. m.

Respectfully submitted,

MRS. F. B. WISHARD, *President*.

The Executive Committee urges you to read the advertisements and use coupons that offer samples and literature. The JOURNAL needs your cooperation.

RESOLUTIONS REGARDING DR. E. E. EVANS

At the mid-winter meeting of the Council of the Indiana State Medical Association held in Indianapolis, on Sunday, January 16th, 1938, the following resolution was unanimously adopted.

Resolved: That in view of the splendid record of Dr. E. E. Evans while serving for several years as a member of this body, and later as its Chairman, we wish to communicate to the members of his family our sincere and heartfelt appreciation for his untiring and constructive efforts in behalf of the welfare of organized medicine, and his exemplary conduct while a member of this Council, and as a practitioner. His strict code of ethics, and his undimmed ideals for the practice of medicine have furnished a bright page in the history of Medicine in Indiana, and have set a standard which the present and future members of our profession may do well to emulate.

It is with a deep sense of loss that we record his passing, and with a true feeling of deepest sympathy that we send to the members of his family our sincere condolences.

Council of the Indiana State Medical Association,
E. M. Shanklin, M.D.,
N. K. Forster, M.D.,
Committee.

**INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES**

Monthly Report, January, 1938

DISEASES	Jan. 1938	Dec. 1937	Nov. 1937	Jan. 1937	Jan. 1936
Tuberculosis -----	183	126	137	247	180
Chickenpox -----	507	260	233	545	491
Measles -----	1481	292	97	48	231
Scarlet Fever -----	953	666	579	909	1345
Smallpox -----	259	219	73	33	16
Typhoid Fever ---	5	8	20	5	6
Whooping Cough--	121	75	109	199	139
Diphtheria -----	295	113	132	103	177
Influenza -----	109	193	102	1579	199
Pneumonia -----	138	100	71	325	251
Mumps -----	27	8	16	117	379
Poliomyelitis -----	1	1	3	0	3
Meningitis -----	6	2	6	14	13
Undulant Fever --	1	5	2	0	0
Tularemia -----	6	28	4	0	0

LOCAL SOCIETY REPORTS

ADAMS COUNTY MEDICAL SOCIETY officers for 1938 are the same as for 1937:

President, C. P. Hinchman, Geneva.
Vice-president, G. J. Kohne, Decatur.
Secretary-treasurer, H. F. Zwick, Decatur.

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BARTHOLOMEW COUNTY MEDICAL SOCIETY officers for 1938 are:

President, H. J. Norton, Columbus.
Vice-president, G. H. Haggard, Hope.
Secretary-treasurer, B. K. Zaring, Columbus.

* * *

BOONE COUNTY MEDICAL SOCIETY members held a meeting at Witham Hospital, Lebanon, February first, at noon. Dr. Bert Ellis, of Indianapolis, presented a paper on "Laryngeal Obstruction." Attendance numbered fourteen.

CARROLL COUNTY MEDICAL SOCIETY members met at Flora, February tenth. The program, sponsored by the Indiana State Board of Health, included moving pictures—DeLee's films on "Eclampsia" and "Asphyxia"—their cause and treatment.

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At the January thirteenth meeting, Dr. J. C. Carter, of Indianapolis, talked on "Infections in Children."

* * *

CASS COUNTY MEDICAL SOCIETY held a meeting at the Cass County Hospital, Logansport, January twenty-first. Dr. Frank Ramsey, of Indianapolis, was the principal speaker; his subject was "Head Injuries."

* * *

CLAY COUNTY MEDICAL SOCIETY officers for 1938 are: President, H. H. Ward, Coalmont.
Vice-president, H. M. Pell, Brazil.
Secretary-treasurer, John M. Palm, Brazil.

* * *

DECATUR COUNTY MEDICAL SOCIETY officers for 1938 are:

President, J. T. Morrison, Greensburg.
Vice-president, Charles Overpeck, Greensburg.
Secretary-treasurer, C. C. Morrison, Greensburg.

* * *

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY members met at Ball Memorial Hospital in Muncie, January eighteenth, to hear a discussion of the subject "Placenta Previa." Attendance numbered twenty-eight. Dr. Robert Butterfield, of Muncie, was voted into membership in the society.

* * *

ELKHART COUNTY MEDICAL SOCIETY members met for their February meeting at the Elkhart Y.W.C.A., February second, with an attendance of sixty-four. Dr. H. W. Kendell, of Miami Valley Hospital, Dayton, Ohio, was the principal speaker.

* * *

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY members met at the McFarlan Hotel, Connersville, January eighteenth, to hear Dr. James Stygall, of Indianapolis, who talked on "Tuberculosis." Attendance numbered fifteen.

* * *

FLOYD COUNTY MEDICAL SOCIETY met at the Tavern Hotel, New Albany, December tenth, for the annual meeting and election of officers. Officers were elected as follows:

President, Henry B. Shacklett, New Albany.
Vice-president, William Weaver, New Albany.
Secretary-treasurer, P. H. Schoen, M.D.

* * *

FLOYD COUNTY MEDICAL SOCIETY met at New Albany February eleventh for a dinner meeting. Dr. William H. Garner, of New Albany, talked on "The Thyroid Gland."

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY members met February first for a dinner meeting at the Chamber of Commerce. Dr. A. Graeme Mitchell, of Cincinnati, Ohio, talked on "What We Do Not Know about

Endocrinology in Children." Attendance numbered eighty.

At the January eighteenth meeting, Dr. Robert S. Berghoff, of Chicago, presented a discussion of "More Common Forms of Heart Disease." Attendance numbered eighty-seven.

* * *

GIBSON COUNTY MEDICAL SOCIETY officers for 1938 are:

President, John L. Morris, Princeton.
Vice-president, R. S. McElroy, Princeton.
Secretary-treasurer, O. M. Graves, Princeton.

* * *

GREENE COUNTY MEDICAL SOCIETY members met at Linton, in the Greene County Hospital, November eleventh. Dr. J. R. Yung, of Terre Haute, was the guest speaker; his subject was "Diseases of the Thyroid."

* * *

GRANT COUNTY MEDICAL SOCIETY members held a meeting at the Veterans Hospital, in Marion, January twenty-seventh. This was a joint meeting with the staff of the Veterans Hospital, with staff members presenting the program. Attendance numbered forty-seven.

* * *

HAMILTON COUNTY MEDICAL SOCIETY members met at the Hamilton County Hospital, December fourteenth with Dr. Thomas B. Noble, Jr., of Indianapolis, as principal speaker. Dr. Noble showed pictures in color of a trip through Arizona.

Officers of the Hamilton County Society for 1938 are:
President, Russell Havens, Cicero.
Vice-president, J. L. Reck, Sheridan.
Secretary-treasurer, J. C. Ambrose, Arcadia.

* * *

HANCOCK COUNTY MEDICAL SOCIETY officers for 1938 are:

President, R. E. Kinneman, Greenfield.
Vice-president, C. K. Bruner, Greenfield.
Secretary-treasurer, J. L. Allen, Greenfield.

* * *

HARRISON COUNTY MEDICAL SOCIETY officers for 1938 are:

President, L. F. Glenn, Ramsey.
Secretary-treasurer, Edgar W. Murphy, Lanesville.

* * *

HENDRICKS COUNTY MEDICAL SOCIETY held a meeting at Danville, January twenty-first. Dr. Francis Smith, of Indianapolis, talked on "Contagious Diseases."

At the meeting held February eleventh, moving pictures on obstetrics were shown.

* * *

HENRY COUNTY MEDICAL SOCIETY members met at Newcastle, January twentieth, to hear Dr. L. G. Montgomery, of Muncie, discuss "Serum Diagnosis of Pneumonia." Attendance numbered twenty.

* * *

HUNTINGTON COUNTY MEDICAL SOCIETY members met at the Hotel LaFontaine in Huntington, January fourth, to hear Drs. E. M. VanBuskirk, Paul Stier, S. Takianoff, and B. W. Rhamy, of Fort Wayne, present a discussion of "Occupational Diseases of the Chest." Attendance numbered twenty-two.

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY members met at the Indianapolis Athletic Club, January twenty-fifth, with Dr. J. W. Ricketts and Dr. Murray N. Hadley as principal speakers. The subject was "Carcinoma of the Recto-Sigmoid." Dr. A. B. Graham and Dr. John Owen were discussants.

At the February eighth meeting, case reports were presented by Drs. J. H. Greist, R. S. Henry, John F. Kelly, J. H. Hawk, N. Cort Davidson, Harold Dunlap, Russell Hippensteel, Henry O. Mertz, J. Don Miller, W. D. Little, J. S. Browning, G. F. Kempf and Foster J. Hudson.

* * *

JAY COUNTY MEDICAL SOCIETY members met at the Portland Country Club, February fourth. Dr. Paul Merrill, of Indianapolis, talked on "Peripheral Vascular Disturbances."

* * *

JENNINGS COUNTY MEDICAL SOCIETY officers for the year 1938 are:

President, D. W. Matthews, North Vernon.
Vice-president, W. H. Stemm, North Vernon.
Secretary-treasurer, D. L. McAuliffe, North Vernon.

* * *

At the meeting held at the Spaulding Hotel in Michigan City, December sixteenth, a moving picture on "Goiter Surgery" was shown, and officers were elected for 1938.

* * *

JOHNSON COUNTY MEDICAL SOCIETY members held a meeting at Franklin, February ninth, with Dr. Howard Mettel and Dr. John W. Ferree, of the Indiana State Board of Health, as principal speakers. Their subject was "The State Board Set-up."

* * *

KNOX COUNTY MEDICAL SOCIETY members met at the Jewel Cafe in Vincennes, February eighth. Dr. W. R. Cleveland, of Evansville, presented a paper on "The Use of Radium and X-ray in Treatment of Neoplasms." Nineteen members attended.

* * *

LAPORTE COUNTY MEDICAL SOCIETY members held a meeting at LaPorte, in the American Restaurant, January twentieth. Dr. M. P. Urnes, of Chicago, talked on "Breech Delivery and Parasacral and Pudendal Block." Slides and moving pictures were used to illustrate the talk. Attendance numbered twenty-two.

* * *

LAKE COUNTY MEDICAL SOCIETY members held their January thirteenth meeting at the Whiting Community Center. Dr. Karl Menninger, of Topeka, Kansas, talked on "The Emotional Factor in the Practice of Medicine," and Dr. N. K. Forster, of Hammond, talked on "A Plan for Consideration on the Subject of Health Security."

The February tenth meeting was held at Mercy Hospital in Gary, when the speaker was C. Rufus Rorem, of New York City. Dr. Rorem talked on "Trends in Economic Medicine."

Officers of the Lake County Medical Society for 1938 are:

President, C. M. Jones, Whiting.
President-elect, G. L. Verplank, Gary.
Secretary-treasurer, E. M. Shanklin, Hammond.

MADISON COUNTY MEDICAL SOCIETY members met in the Anderson Hotel, Anderson, January seventeenth, to hear a program sponsored by the Indiana State Board of Health, Department of Maternal and Child Welfare, which included talks by Dr. G. V. Cooke, of Washington University, St. Louis, and members of the Indiana State Pediatric Society, including Dr. Matthew Winters and Dr. Herbert Call, of Indianapolis.

* * *

MONTGOMERY COUNTY MEDICAL SOCIETY members met at the Culver Hospital in Crawfordsville, January twentieth. Dr. J. O. Ritchey, of Indianapolis, talked on "Treatment of Pneumonia." Attendance numbered thirty-six.

* * *

Montgomery County Medical Society members held a meeting December sixteenth at Crawfordsville with forty in attendance. This was the annual Christmas party, and Dwight Hansborsky of Wabash College entertained with tricks of magic and ventriloquism.

Officers of the Montgomery County Society for 1938 are:

President, H. A. Kinnaman, Crawfordsville.
Vice-president, M. E. Gross, Ladoga.
Secretary-treasurer, John L. Sharp, Crawfordsville.

* * *

MORGAN COUNTY MEDICAL SOCIETY members met at Mooresville, February second, to hear Dr. Reuben Solomon, of Indianapolis, talk on "Management of Heart Disease." At this meeting, officers for 1938 were elected as follows:

President, Leon Gray, Martinsville.
Vice-president, W. J. Stangle, Mooresville.
Secretary-treasurer, M. C. Pitkin, Martinsville.

* * *

MUNCIE ACADEMY OF MEDICINE held a meeting February eighth at the Hotel Roberts. The speaker for the meeting was Dr. Walter Stuck, of San Antonio, Texas, and his subject was "Recent Advances in the Treatment of Fractures with Metal Appliances." The discussion was led by Dr. W. F. Lyon, of Chicago.

* * *

PARKE-DAVIS COUNTY MEDICAL SOCIETY members held a meeting January nineteenth, at the Vermillion County Hospital in Clinton. Dr. Herbert F. Call, of Indianapolis, talked on "Infectious Diseases in Children." Attendance numbered seventeen.

* * *

NORTHEASTERN INDIANA ACADEMY OF MEDICINE held a meeting at the Kendall Hotel in Kendallville, January twenty-seventh. Dr. M. P. Urnes, of Chicago, was the principal speaker, his subject being "Management of Occiput Posterior Position," illustrated with motion pictures.

* * *

PORTER COUNTY MEDICAL SOCIETY members met at Valparaiso, January twenty-fifth, for a dinner meeting. Dr. Camillo Volini, of Chicago, talked on "Pneumothorax and Methods of Doing It in the Home." The paper was illustrated with slides. Attendance numbered fourteen.

* * *

PULASKI COUNTY MEDICAL SOCIETY officers for 1938 are:

President, C. E. Linton, Francesville.
Secretary-treasurer, T. E. Carneal, Winamac.

PUTNAM COUNTY MEDICAL SOCIETY officers for 1938 are:

President, C. B. O'Brien, Greencastle.
Secretary-treasurer, Gilbert D. Rhea, Greencastle.

* * *

RANDOLPH COUNTY MEDICAL SOCIETY members elected the following officers for 1938:

President, O. E. Current, Farmland.
Vice-president, L. B. Chambers, Union City.
Secretary-treasurer, A. M. Brenner, Winchester.

Officers were installed at the January tenth meeting, with the new president, Dr. Current, as principal speaker for the meeting. His subject was "Annual Report of Randolph County Hospital."

* * *

SHELBY COUNTY MEDICAL SOCIETY members heard Dr. Robert Moore, of Indianapolis, talk on "Heart Emergencies" at their dinner meeting in Shelbyville, February second.

* * *

SPENCER COUNTY MEDICAL SOCIETY members held a meeting at Rockport, January eighteenth. Dr. W. R. Springstun, of Evansville, was the speaker, his subject being "Contagious Diseases in Children."

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY met at the Columbia Club in South Bend, January twenty-fifth, with Dr. L. G. Erickson, of South Bend, as speaker. Dr. Erickson's subject was "Modern Concepts in the Treatment of Cancer." Attendance numbered forty-five.

At the February ninth meeting of the St. Joseph County Medical Society, Dr. Earl Langenbahn was the principal speaker, talking on "Rationale of Management of Kidney Infections."

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY members met at Purdue University, February eighth, for a dinner meeting. The Executive Committee met at 5:30, and after the dinner Dr. Floyd T. Romberger presented an address entitled "Anesthesia Up to Now." Attendance numbered forty-five. Visitors included members of the dental society and physicians from Danville, Illinois.

* * *

TIPTON COUNTY MEDICAL SOCIETY members have elected the following officers for 1938:

President, S. M. Cotton, Goldsmith.
Vice-president, H. B. Shoup, Sharpville.
Secretary-treasurer, A. E. Stouder, Kempton.

* * *

At the January twenty-first meeting of the society, Dr. Mearl Hoppenrath talked on "Differential Diagnosis in Female Pelvic Conditions."

* * *

VANDERBURGH COUNTY MEDICAL SOCIETY held a meeting at Evansville, December fourteenth at the Vendome Hotel. Dr. Adeline Muelchi, Dr. Isidor Raphael, and Dr. Russell Springstun presented papers on "Scarlet Fever," "Whooping Cough" and "Diphtheria." Number present was forty-eight. Officers for 1938 were elected as follows:

President, Alvin E. Newman, Evansville.
Vice-president, D. G. Tweedall, Evansville.
Secretary-treasurer, P. E. Yungcr, Evansville.

VIGO COUNTY MEDICAL SOCIETY members held a meeting at the Union Hospital in Terre Haute, December fourteenth, with Dr. Leon L. Blum as principal speaker. Dr. Blum's subject was "The Anemias; Classification, Diagnosis and Principles of Treatment." Officers for 1938 included:

President, O. O. Alexander, Terre Haute.
Vice-president, W. H. Miller, Terre Haute.
Secretary-treasurer, A. M. Mitchell, Terre Haute.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY members met at the Richmond-Leland Hotel in Richmond, February tenth, to hear Dr. W. E. Crump, of Indianapolis, who conducted a round-table discussion on "Obstetrical Problems." Attendance numbered thirty-five.

At the January thirteenth meeting of the society, Mr. Albert Stump, of Indianapolis, talked on "The Professional Man in the Community." This was a joint meeting with the Bar and Dental associations and registered pharmacists and wives of physicians as guests. Attendance was 110.

* * *

WHITLEY COUNTY MEDICAL SOCIETY members met at Columbia City, December fourteenth for a business meeting and election of officers. Officers are:

President, Ben Pence, Columbia City.
Vice-president, L. W. Tennant, Larwill.
Secretary-treasurer, O. F. Lehmberg, Columbia City.

Books

HEMATOLOGY. By William Magner, M.D., D.P.H., Pathologist, St. Michael's Hospital, Toronto; lecturer in pathology, University of Toronto. 395 pages; 3 charts, 3 colored plates, 23 text illustrations. Washable cloth covers. Price \$4.50. P. Blakiston's Son and Co., Inc., 1938.

This book is an account of the theory and practice of hematology to serve the needs of practicing physicians, students, laboratory workers and teachers of medicine. Normal and abnormal hemopoiesis, the structure and functions of the bone marrow, the etiology of the blood dyscrasias and the clinical and laboratory aspects of disorders of the hemopoietic system are described.

* * *

PRACTICAL BACTERIOLOGY, HAEMATOLOGY, and PARASITOLOGY. By E. R. Stitt, M.D., Sc.D., LL.D., Rear Admiral, Medical Corps; and Paul W. Clough, M.D., chief diagnostic clinic, Johns Hopkins Hospital Associate in Medicine, Johns Hopkins University; and Mildred C. Clough, M.D., formerly Fellow in Bacteriology and Instructor in Medicine, Johns Hopkins University. Ninth edition, rewritten, revised and enlarged. Washable covers. \$7.00. P. Blakiston's Son & Co., 1938.

More than ten years have elapsed since the eighth edition of this book was published, and many important practical advances have necessitated a complete rewriting to permit their incorporation. More space has been given to interpretation and diagnostic significance of laboratory methods and the data have been still further correlated with the clinical picture. The book considers all available types of laboratory tests and an index of useful procedures is included for assistance in the selection of appropriate tests.

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- Bismuth Subsalicylate with Butyn-D. R. L., 500 cc. bottle.
- Dextrose 20% W/V in Distilled Water.
- Dextrose, U. S. P., 25% W/V in Physiological Sodium Chloride Solution.
- Dextrose 2½% in Physiological Sodium Chloride Solution.
- Metaphen Ophthalmic Ointment.

B. L. Benson—

- Glycyrrhiza Compound Extract Squares.
- International Vitamin Corporation—

- I. V. C. Cod Liver Oil Concentrate Capsules.
- I. V. C. Cod Liver Oil Concentrate in Oil.

Lederle Laboratories—

- Rabies Vaccine-Lederle (Semple Method), 7 vials package.

Eli Lilly & Co.—

- Combined Diphtheria Toxoid-Tetanus Toxoid-Alum Precipitated, one 5 cc. vial package.

Mallinckrodt Chemical Works—

- Sulfanilamide-Mallinckrodt.

Mead Johnson & Co.—

- Mead's Compound Syrup Oleum Percomorphum.

Merck & Co., Inc.—

- Vinethene (Merck), three 10 cc. bottles package.

Parke, Davis & Co.—

- Staphylococcus Toxoid.
- Solution Adrenalin Chloride 1:100.

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ABSTRACTS

EQUIPMENT FOR AIR CONDITIONING

Emery R. Hayhurst, Aubrey I. Brown, Columbus, Ohio, and Richard Kahn, Dayton, Ohio (*Journal A.M.A.*, Nov. 27, 1937), discuss the mechanical requirements necessary to obtain suitable control of the following factors in air conditioning: temperature, humidity, air motion, air distribution, dust, bacteria, odors and toxic gases. They emphasize that at the present time some commercial interests are stressing excessively low summer temperatures and are permitting high air velocities in air conditioned spaces, in comparison with outdoor conditions, and in some cases are failing to provide adequate dehumidifying facility, a most important item in proper summer air conditioning. Much of the air conditioning now being installed is under the control of operators and proprietors who have such a complete misunderstanding of the requirements of the human body that it promotes discomfort and jeopardizes health for persons exposed to these "artificial climates."

OPERATIVE AND CONSERVATIVE TREATMENT OF TUBERCULOSIS OF THE SPINE: COMPARATIVE STUDY

HARRY FINKELSTEIN, BENJAMIN B. GREENBERG, SAMUEL A. JAHSS and LEO MAYER, New York (*Journal A. M. A.*, February 12, 1938), compared the relative effectiveness over a period of ten years of fusion operations and conservative treatment of tuberculosis of the spine. Their study has been limited strictly to children up to the age of twenty. The patients now in the hospital are not considered. In all, forty-three cases are being reported. Twenty-six patients were treated by fusion procedures and seventeen by purely conservative measures. The criteria for cure which they have laid down are the following: 1. Pain, fever, muscle spasm and tilt of the body must completely disappear for at least three months. 2. Abscesses must disappear both clinically and roentgenographically and sinuses must close. 3. In the roentgenogram there must be evidence of increased calcification in the area of destruction, cessation of all advance of the process and a so-called bloc formation. The correctness of their judgment in deciding when a patient was cured is confirmed by the fact that, of all their patients, only one of those operated on and only two of those not operated on had to be readmitted for relapse. For those not operated on, 876 days was the average duration of treatment; for those operated on, 1,215 days. In other words, the patients operated on, although matched impartially against those not operated on, required approximately 40 per cent more time for their cure. Under the conditions of the experiments, the authors, by this simple study of the number of days' care, reach the conclusion that the fusion operation does not shorten the duration of the disease but that, on the contrary, it prolongs its course. In five of the patients operated on abscesses or sinuses developed after the fusion procedure. Abscesses developed in three of the patients not operated on. In other words, they developed with about the same degree of frequency in the two groups. In four patients operated on signs of paraplegia occurred after successful fusion. In the patients not operated on there were also four cases. Therefore operation does not appear to prevent paraplegia. Recurrences can take place after a successful fusion procedure. One patient not operated on also had a recurrence. No particular difference could be observed in progression of deformity between the patients not operated on and those operated on. The progression seemed to occur despite fusion. In cases of the milder forms of infection, particularly in the lumbar part of the spine, the progression of deformity could be checked or, in some cases, completely cured by postural treatment with or without operation. In the cases of more virulent infection, chiefly of the mid-dorsal region, deformity progressed despite everything that was done. It was equally marked in the patients operated on and in those not operated on. In twelve cases in which the duration of the disease was six months or less before the patient's admission, the average number of post-operative days of care was 990. In seven cases in which the disease had been active from one to two years, the postoperative period of care averaged 1,210 days. In three cases in which the duration had been respectively four, six and thirteen years, the average was only 480 days. From these figures it is evident that in the three cases in which activity had been present for a long period, four years or more, the operation had a beneficial effect. Healing occurred more rapidly in the patients in whom the activity had been present a shorter period. It may be that, could spinal tuberculosis be diagnosed during its incipient stage and a fusion done at once, the course of the disease would be altered.

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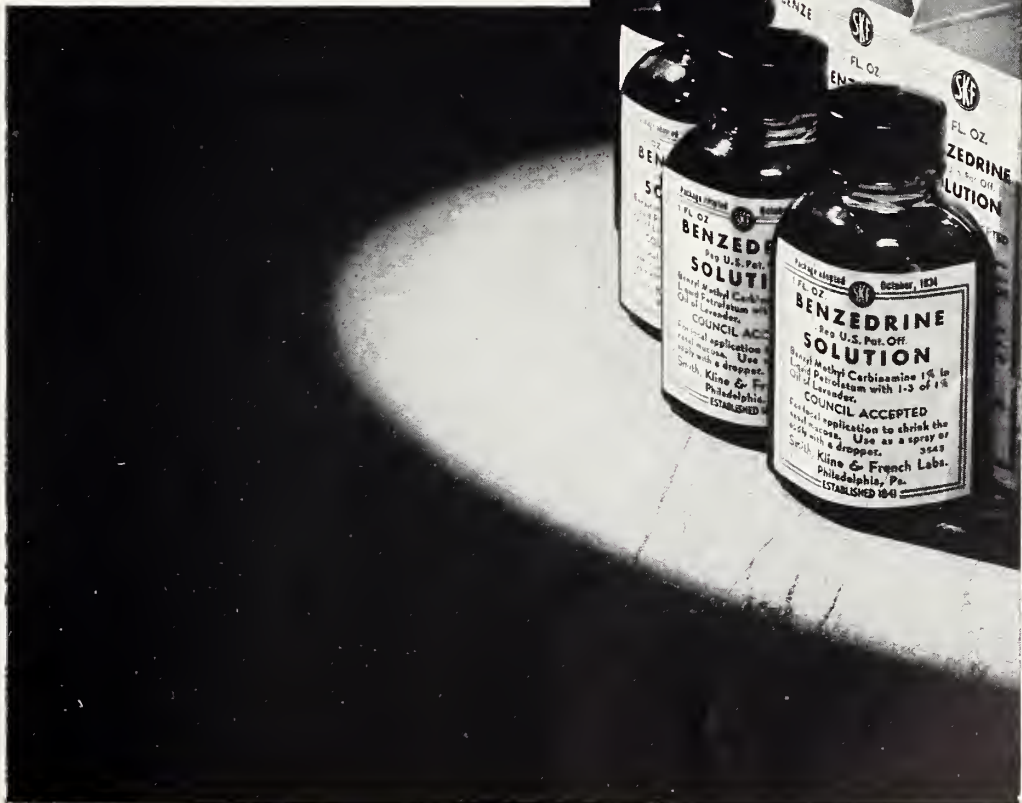
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ABSTRACTS

IMMUNITY TO SMALLPOX

In September 1936, 1,053 students who were matriculating for the first time at Kansas State College were vaccinated against smallpox. M. W. Husband and David T. Loy, Manhattan, Kan. (*Journal A.M.A.*, Nov. 27, 1937), examined each student on the second, fourth and seventh days and later if indicated following the date of vaccination. Of the group vaccinated, 26.6 per cent had no protection against smallpox. Thirty-four and nine-tenths per cent (accelerated reactions) had only partial or impaired immunity to smallpox. It is reasonable to assume that this group is susceptible to smallpox in a milder form and capable of transmitting the disease to nonimmune contacts in a more severe form. Therefore, this group represents a potential public health problem. Sixty-one and five-tenths per cent (primary takes, secondary takes and accelerated reactions) were in some degree susceptible to smallpox. Revaccination restores or reinforces protection against the disease, and it is an acceptable procedure from the point of view of the students. The only practical method for reaching the students who are without adequate protection is by vaccination of each entering student. Moreover, these students who go out to become leaders in their communities should be educated as to what constitutes adequate protection against smallpox.

RESULTS OF RADIATION THERAPY FOR CARCINOMA OF THE UTERUS AT THE WOMAN'S HOSPITAL, NEW YORK, 1919-1932

During the eighteen years that GEORGE GRAY WARD and NELSON B. SACKETT, New York (*Journal A. M. A.*, January 29, 1938), have been treating carcinoma of the cervix with radium at the Woman's Hospital as part of a regular gynecologic service, they have salvaged for five years 27.4 per cent of the 595 patients seen and 28.5 per cent of the patients treated. In the cases of early carcinoma, in which the disease was limited to the cervix, they saved 56.2 per cent, showing the importance of treating the disease in the beginning stages. For the 359 patients seen over a period of ten years the absolute cure rate was 17.3 per cent and the relative rate was 18 per cent. In spite of lowered life expectancy, 73 per cent of those who survived five years lived ten years or longer. They believe that the extent of the disease is of greater importance than the type of cell in determining the probability of cure. In their series early carcinoma had twice the curability of advanced carcinoma, irrespective of the maturity of the cells and of whether they were of the squamous or adenocarcinomatous type. The high incidence of carcinoma of the stump after supravaginal hysterectomy points to the desirability of doing a panhysterectomy whenever possible if no added risk is involved. In 108 cases of carcinoma of the fundus an absolute five-year cure rate of 42.6 per cent was obtained and a relative rate of 45.5 per cent. A panhysterectomy is the most essential part of the treatment of carcinoma of the corpus and should be employed whenever possible. Combined radiotherapy and hysterectomy seems the most promising method. However, surgical intervention is contraindicated in nearly 50 per cent of the cases, and radiotherapy is the only resource for this group. There is a great need for comparative studies of the improvement obtained in combining high voltage roentgen therapy with radium therapy, and the conclusions should be based on the absolute survival rates over periods of five and ten years and not on generalized clinical impressions. With the adoption of the Coutard fractional technic definite improvement may be hoped

for. A survey of the six statistical reports of the authors' results shows an improvement in the relative five-year cure rates that they have obtained as follows: 1925, 23.6 per cent; 1928, 23.1 per cent; 1930, 25.5 per cent; 1932, 24.8 per cent; 1934, 25.28 per cent, and 1937, 28.5 per cent.

CLINICAL EXPERIENCE WITH PROTAMINE ZINC INSULIN

EDWIN J. KEPLER, Rochester, Minn. (*Journal A. M. A.*, Jan. 8, 1938), states that the policy at the Mayo Clinic has been to give one dose of protamine zinc insulin in the morning, before breakfast. When necessary, this is supplemented with a small dose of regular insulin given at the same time. In the more refractory cases an additional dose of regular insulin may have to be given before the evening meal. Most of the burden of keeping the urine sugar free is thus placed on the protamine zinc insulin. This has seemed to be the best method of using the protamine zinc insulin. To date, June 1937, at least 400 patients have been treated in this fashion. The fact that diabetic patients differ in their response to treatment is frequently overlooked. The cause of this variability is not known. It may possibly indicate that there are different forms of the disease, different etiologic factors, or merely differences in the intensity of the disease. Irrespective of the cause, any judgment on the merits of therapeutic measures should take cognizance of the ease or difficulty with which different diabetic patients can be treated. Failure to realize that such differences exist accounts for many erroneous conclusions regarding therapeutic measures. Protamine zinc insulin has facilitated treatment in many cases of diabetes, especially those in which the disease was of moderate severity. Earlier and more severe cases of diabetes, in which the blood sugar is unstable, are still a problem in treatment. In these cases nocturnal glycosuria can be eliminated with protamine zinc insulin, but control of the diurnal glycosuria is still difficult to achieve if violent hypoglycemic episodes are to be avoided. Many of these patients feel better while taking protamine zinc insulin than they did while taking regular insulin, even though glycosuria is present during the day. Until the cause of arteriosclerosis and the allied degenerative lesions which occur in diabetic patients has been determined beyond any reasonable doubt, one is not justified in assuming that such glycosuria is not detrimental to health. Protamine zinc insulin has proved of value as an adjunct in the treatment of diabetic acidosis and coma and in the preoperative and postoperative management of diabetic patients who have surgical diseases.

CULTURE OF HUMAN MARROW: STUDIES ON MODE OF ACTION OF SULFANILAMIDE

EDWIN E. OSGOOD, with the technical assistance of INEZ E. BROWNLEE, Portland, Ore. (*Journal A. M. A.*, January 29, 1938), declares that the simple method of culture of human marrow is well adapted for the evaluation of therapeutic agents. It permits determination of their effect on living human cells, of the toxic dose and of the minimum effective therapeutic dose, and accurate control of concentration. Sulfanilamide was chosen as the first drug to be studied because its use is relatively new, its mode of action is not thoroughly understood, and it has been suggested that its action may be directly on blood cells rather than on bacteria alone. All experiments were performed on infections with the beta hemolytic streptococcus. The major action of sulfanilamide

(Continued on page XXIX)

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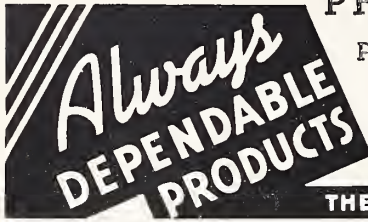
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(Continued from page XXVII)

on the beta hemolytic streptococcus seems to be neutralization of the toxins. Either because of this action or incidentally it also decreases the rate of cell division of this organism. It appears not to kill these organisms directly, although it does permit the bactericidal properties of human serum and to some extent phagocytosis by leukocytes to kill organisms which they otherwise would be unable to kill. It has no direct effect on phagocytosis. The effective concentration of sulfanilamide would appear to be about 1:100,000 or only one-tenth of that now ordinarily maintained in the blood stream, but this experimental observation requires confirmation by carefully controlled experiments on large numbers of human infections before it is justifiable to employ smaller dosages in dangerously ill patients. Sulfanilamide in concentrations even greater than those generally employed clinically does not appear to have direct toxic action on the nucleated cells of the majority of bloods or marrows. This does not exclude the occurrence of an occasional idiosyncrasy in the reactions of these cells such as is known to occur for other benzene ring drugs. The possible effectiveness of and the mode of action of sulfanilamide on all other organisms known to produce human disease should be determined by the methods here described as soon as possible. Cultures of human marrow should aid materially in the study of the mode of action of both noxious and therapeutic agents.

AMENORRHEA: ITS CAUSATION AND TREATMENT

For their study ROBERT T. FRANK, MORRIS A. GOLDBERGER, U. J. SALMON and GERTRUDE FELSHIN, New York (*Journal A.M.A.*, Dec. 4, 1937), selected patients who had suffered with amenorrhea for various periods and were of various ages. Intelligence, faithful carrying out of orders, ability and willingness to report as directed were of importance in the choice. In one instance the investigation covered 430 days. In only five cases were the studies continued for less than one entire month. By all available clinical criteria determined as a routine before selecting the patient, including the secondary sex characters, basal metabolism, blood examinations, sellar x-ray films, Janney test for sugar tolerance, blood pressure, pelvic examination, and the like, twenty-four of the twenty-seven patients showed no serious deviations from any group of normal women of similar economic and social status. A wide variation in the hormone status occurred. Evidence of almost complete ovarian atunction, subthreshold function and normal follicular activity as well as excessive activity was represented. In these four groups the gonadotropic assay may show either overfunction or underfunction. No evidence pointing to either a primary pituitary or a primary ovarian causation of amenorrhea could be demonstrated. Amenorrhea does not preclude the occurrence of ovulation or pregnancy. The response to estrogenic therapy of amenorrheic patients differs markedly from that in the menopause. The threshold of response in amenorrhea is far higher than in the menopause. This difference can be utilized in patients to differentiate between the two conditions, if an excess of gonadotropic substance has been found in the urine. Disappearance of gonadotropic substance produced by 30,000 rat units of estrogenic substance warrants the diagnosis of menopause. No useful purpose is served in prescribing estrogens for the treatment of amenorrhea. In the dosage (from 60 to 510 rat units) used by the authors, gonadotropic preparations likewise proved ineffective. It is justifiable to try very high dosage of gonadotropic preparations when these become available. The study has failed to locate the cause or causes producing amenorrhea. Not only ovarian or anterior pituitary refractoriness but also a failure of uterine response must be considered in the etiology.



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Diphtheria

DIAGNOSIS AND TREATMENT OF DIPHTHERIA

ERNEST R. CARLO, M.D.

Fort Wayne

When a disease plays a major role in the health of a community or nation, all forces combine to minimize the damage done by it, and efforts are made to discover methods of preventing it. If preventive methods are found, attention of the physician turns from treatment to prevention. As the incidence of the disease gradually declines, attention is again concentrated on the solution of another major problem. As a result, the physician's interest in the preventive measures not only lags but frequently his diagnostic and therapeutic keenness is dulled, for these are developed in proportion to the need for them.

Although one is justified in expecting that the preventive measures now available will eventually eradicate diphtheria, until that time comes there will be many cases to challenge our skill. This review of some pertinent facts on diagnosis and treatment of diphtheria is presented with the hope that through them, and in spite of the less frequent need for them, we shall maintain our diagnostic and therapeutic efficiency on the same high plane as when this disease played a more important role in the health of the community and nation.

DIAGNOSIS

Since, in the majority of cases, the physician is able to make a diagnosis of diphtheria solely on the clinical aspects of the disease, the various types and differentiating points will be presented from that point of view. It should be remembered that each type, from the mildest to the more serious, may progress to the malignant form unless proper treatment is instituted early, but for the convenience of discussion they may be rather sharply differentiated.

LOCALIZED TYPES, although characterized by a lack of tendency to spread, may always do so and present a peculiar problem as very few constitutional symptoms are present. *Fever*, which is the

most frequent cause for calling a physician, is usually not a conspicuous part of the picture. Localizing symptoms, such as sore throat and cough, are also usually mild or absent. Due to the lack of marked symptoms, the infection may have been present for several days and the physician is called only after the infection has exercised its ever potential possibilities and progressed to a form characterized by the more severe general or localizing symptoms. Undoubtedly, there are many of these cases never seen by a physician as they may recover without the administration of antitoxin. In other cases higher fever or soreness of the throat may be conspicuous enough to demand the early services of a physician, and on examination the tonsils and soft palate are only moderately red and swollen, although a veil-like covering or a few scattered white spots may be present. The *regional lymph nodes* in the submaxillary region are usually more swollen and tender than the appearance of the throat would seem to justify. In differentiating this early localized form from follicular tonsillitis or an early streptococcus infection, the lack of sore throat and constitutional symptoms, together with the relative paleness of the throat, are valuable differentiating points and suggest diphtheria. A culture may be taken at this time, but should never be substituted for frequent and critical examinations as the progressive changes in the appearance of the throat will usually reveal the diagnosis. Within twelve to twenty-four hours this veil-like membrane or spots become a creamy white covering over the tonsils and soft palate. As this change in the throat occurs, all symptoms become more marked, at least conspicuous enough that it is most often at this stage that the physician is consulted. Probably this relatively mild form presents the greatest problem from the public health point of view, but

should not especially burden the diagnostic ability of the critical physician.

The more classical form of diphtheria, the type most frequently seen early by the physician, produces more marked general and localizing symptoms. The infection may occur in any part of the respiratory tract—nose, pharynx, trachea, or bronchi—and because of its marked tendency to spread, most often involves more than one region.

Nasal diphtheria produces marked constitutional symptoms because of the large surface involved and must always be considered severe since the amount of toxin produced is proportionate to the extent of mucous membrane involved. There is usually profuse nasal discharge, most often from both nostrils, usually blood-tinged but sometimes silvery and opalescent, and eventually producing excoriations about the nose and upper lip. This form is especially common in infants over six months of age—after the age period when a blood-tinged nasal discharge demands serious consideration of a syphilitic rhinitis.

Most often the first symptom of laryngeal diphtheria is a croupy, barking cough, and in addition, difficult respirations in proportion to the degree of obstruction present. Laryngeal involvement may occur by extension of nasal or pharyngeal infection, in which case, in addition to the croupy cough, the general symptoms are more marked. In this form all symptoms, especially the obstructive, progress rapidly—most rapidly in small children. As the membrane extends, symptoms of obstruction increase, a retraction of the lower ribs and supra-clavicular spaces occurs, and the voice becomes increasingly hoarse, leading to an absolute aphonia. If the obstruction is not relieved by either the coughing out of the mucus and membranes—which should not be depended upon—or intubation, death by suffocation terminates the picture.

The immediate problem in the proper management of laryngeal diphtheria is its early differentiation from other conditions producing a similar cough and obstructive symptoms. *Pseudocroup* has a sudden onset, usually at night, improves during the day, has no marked obstructive symptoms, and tends to improve gradually, while diphtheritic laryngitis may begin during the day or night, improves only slightly during the day and progresses steadily to aphonia and marked obstructive symptoms. Catarrhal laryngitis, whether due to an influenza or streptococcus infection, as well as laryngo-tracheo-bronchitis, must each be considered in the early diagnosis. The progressive severity of symptoms in diphtheritic laryngitis is probably the most valuable diagnostic point and when in doubt, antitoxin should always be administered early.

The most severe form of diphtheritic infection, referred to as the *malignant form*, is fortunately seen rather infrequently. Whether this form occurs because of infection by an unusually virulent form of the diphtheria bacillus or develops from a milder infection, is of only passing interest. The patient is desperately ill and the general and localizing

symptoms described in the previous types are markedly exaggerated. In addition, there is intense swelling of the submaxillary glands and marked edema of the neck which produces the picture commonly referred to as “bull neck.” There is a distinct tendency to hemorrhage, and gangrene of the edematous tissue is not uncommon.

The diphtheritic toxin does serious damage to kidneys, circulatory apparatus and liver, as indicated by marked albuminuria, vomiting, dilation of the heart with gallop rhythm, falling blood pressure, and severe abdominal pain by rapid enlargement of the liver. These are all ominous symptoms and indicate a fatal termination.

To emphasize what was previously mentioned, it is always safe to assume that the mildest type of diphtheritic infection is likely to progress to the most severe form and that even the less virulent forms frequently damage not only the heart but the entire circulatory apparatus.

TREATMENT

The most important single procedure in the proper treatment of diphtheria is the early administration of an adequate amount of antitoxin, the number of units given being determined by the duration of the illness and the severity of the infection.

In previous years, due to the relatively larger volume of antitoxin required and the corresponding high globulin content, one hesitated to administer serum to the allergic patient unless the diagnosis of diphtheria had been definitely made. At the present time the availability of more refined antitoxin, together with the development of methods for preventing or modifying severe allergic reactions, demand the administration of antitoxin in any case in which the possibility of diphtheria cannot definitely be excluded.

Dosage: Many methods have been devised for determining the exact number of units required in any particular case, and as a result, the dosage recommended varies considerably. Since the number of units administered should be primarily determined by the duration of the illness and the severity of the case, the amount of antitoxin must be determined by clinical experience rather than by any mathematical formula.

In order more intelligently to select the proper method or methods of administration, one should remember that the full amount of toxin is not produced at one time, but is produced continuously up to and for a short time following the injection of antitoxin. Some of the toxin rapidly becomes anchored to the cells but only that produced before the injection of the antitoxin and which is still free in the tissue fluids, and that produced following the injection, can be neutralized by antitoxin administration. Since the early neutralization of the toxin is important, antitoxin administered by the subcutaneous method is rarely ever used, as absorption is notably slow. The methods of choice

are by either the intramuscular or intravenous routes.

In mild or moderately severe cases when seen early, twenty to forty thousand units are given intramuscularly. If more severe, and if seen several days after the onset, forty to eighty thousand units may be given, part given intravenously for rapid neutralization of the toxin produced shortly before the serum administration but not as yet anchored to the tissues, and the remaining portion intramuscularly, to be available at a later time for neutralization of the toxin which may be produced after the injection. In the so-called malignant forms, twice this dosage may be given, in spite of which death may occur since more than the lethal dose of toxin may have been produced and combined with the cells before the administration of the antitoxin.

Until recently, intravenous injections of sera have not been popular because of the rather frequently rapid and occasionally fatal allergic reactions. Recently it has been found that these severe reactions may be obviated to a great extent by the administration of the serum in five hundred c. c. of 10% glucose solution to which has been added adrenalin chloride, 1:1000, 6 to 10 mms. When given slowly, undesirable reactions infrequently result.

Every case should be isolated, at a hospital or in the home. Hospital care for croup cases is a necessity as special equipment and trained attendants must be immediately available when obstruc-

tive emergencies arise. Unfortunately, many communities do not have suitable isolation facilities and more often skilled attendants are not available.

Bed rest should be insisted upon for at least fourteen days as even in the mildest case some myocardial damage results. Diet should be liquid or semiliquid in the early days with emphasis on a generous sugar intake. The latter has seemed to be of considerable value in the prevention of myocardial damage and in certain institutions the routine daily intravenous administration of glucose, 10%, has seemed to be of value in decreasing serious heart complications, and should be continuously employed in all cases.

Contacts: The injection of antitoxin to all contacts should be discouraged and should be done only if the case is a malignant one or daily examination is impossible. Careful cultures of both the nose and throat may give information of value. Determination of susceptibility by use of the Schick Test will indicate those requiring most careful observation.

CONCLUSION

Whenever there is infrequent need for accurate diagnosis and correct treatment of any disease, either or both is likely to suffer. Although there is no evidence of such having occurred in the instance of diphtheria, this possibility is always a real one, and this brief review is presented in the hope that diphtheria may be the exception.

POST-DIPHTHERITIC COMPLICATIONS

R. A. CRAIG, M.D.

Kokomo

Of all the acute infectious diseases of childhood, diphtheria is the one concerning which we have the most accurate knowledge. Not only do we know the cause, symptoms, and course of the disease, but we have at our command efficient methods for diagnosing, curing and preventing it and, in short, for absolutely eradicating it in any civilized country. Yet in spite of all this, it is still one of the chief causes of death among our young children.

Much has been done in the last few years to lessen the incidence of the disease and the work has been effective, for the number of cases has diminished from 1,616 in 1928 to 750 in 1937 in Indiana. Still in that period of ten years there were 1,351 deaths in Indiana from diphtheria.

Children who succumb to diphtheria die from two causes, broadly speaking: they either suffocate from membrane in the larynx or lungs, or they die from the effects of diphtheria toxin on the organs of the body. In this paper only the effects caused by diphtheria toxin will be considered.

Diphtheria toxin is a slow poison, requiring some weeks to produce all of its effects. The dose of the poison in any given case when it first comes under observation can be estimated by the extent of the

local lesion and its duration before antitoxin is administered. An adequate dose of antitoxin prevents any further damage by neutralizing any poison in circulation, but does not counteract any toxin already fixed in the tissues.

The action of the toxin is surprisingly uniform, and although, naturally, one individual differs from another in his resistance and reaction, still the after-effects of a severe attack of diphtheria are remarkably similar in all cases.

For clinical purposes, diphtheria affects three organs only, namely, the kidneys, the heart, and the nervous system. From autopsy findings and animal experiments, it seems probable that the disease also affects the thyroid, liver, pancreas and especially the suprarenals, but at present we have no way of estimating the damage to these organs and the effects on them apparently do not influence the clinical picture. We shall confine our discussion, therefore, to the three organs which give obvious clinical signs or symptoms.

THE KIDNEYS

The first evidence of the effect of diphtheria toxin upon the kidneys is in the form of a nephrosis and

not a nephritis. Anatomically, no involvement of the glomeruli is found; only the degeneration of the tubules is present. The hematuria observed in diphtheria is due to emboli lodged in the kidney (kidney infarct) and is not a symptom of a hemorrhagic nephritis. The sediment of the urine in diphtheria does not show any signs of an inflammatory process in the kidney. In contradistinction to the poor prognosis of nephrosis of another origin, the nephrosis encountered in diphtheria is, in itself, benign. If the diphtheritic process can be healed, the nephrosis will clear up.

THE HEART

Almost simultaneously with the kidneys, the heart is affected. Cardiac failure is the most common cause of death in the fatal cases of diphtheria and has always attracted much clinical interest and there are varied opinions as to its cause.

Formerly, thrombosis, paralysis and vasomotor failure had all been blamed, but in recent years the condition has been placed on a sound pathological basis. There is practically no doubt now that the post-diphtheritic cardiac symptoms are due to an acute degenerative myocarditis. It is a toxic parenchymatous degeneration or necrosis of the muscle fibres of the heart, with a later reparative inflammatory process with regeneration of the muscle. Both the contractile and conducting mechanisms of the heart may be affected by these processes. The occurrence of myocarditis is apparently as constant as the nephrosis though more difficult to demonstrate.

The color of the patient and the character and rate of the pulse are the only indications of beginning cardiac failure. Blood pressure and cardiographs are of little value. Cardiac dilatation with vomiting, heart block, and death follow quickly in the worst cases. The symptoms of cardiac failure appear on the fifth to the seventh day, reach a peak about the tenth to the fourteenth day, and usually rapidly subside. After the twenty-first day one rarely needs to fear a cardiac breakdown.

White, Golden, and Thompson followed 100 cases for twenty years after moderately severe diphtheria (91 of whom were examined ten years ago as well) and studied them thoroughly as to the development of conduction disturbance. They conclude that, while there are acceptable cases of the development of disturbed conduction during the course of diphtheria, and that in very rare cases the disturbance persists permanently, there is as yet no proof that it may develop some years after the illness. It is generally accepted that once the patient survives the acute attack there is absolute restoration of the heart to normal.

Then if the outlook is so bright, if the first two weeks are survived, it becomes most important to keep these patients in absolute bed rest, not so much as raising an arm, for the duration of the acute attack. Digitalis is harmful in these cases, and other cardiac stimulants seem of little value, although strychnine and rum are recommended by several writers.

THE NERVOUS SYSTEM

The effect of diphtheria toxin on the nervous system is regular and purposeful and is fascinating to observe.

There is a relatively long incubation period followed by paralysis of the muscles which had been the first site of the lesion, with absolute constancy, and then of certain definite groups of muscles. Thus in the ordinary pharyngeal cases of diphtheria there is first a paralysis of the soft palate, then two or three weeks later the ciliary muscles, and almost immediately, a weakness of all the muscles with loss of tendon reflex. This may progress until the respiratory muscles, cervical muscles, muscles of the tongue and of the lower members are paralyzed (ninth or tenth week) and always in the order named. The facial nerve is always excepted. Incidentally, alcoholic, botulinic, and tetanic poisons follow in the same order.

After the sixth to the tenth week there is rapid and steady improvement, the time, of course, varying with the extent of the paralysis.

Until the contrary is proved, the diphtheritic paralysis must be regarded as a polyneuritis due to the fixation of the toxin, first, on a nerve of the diseased region, and, second, on definite nerves having an elective affinity for the poison which reaches them through the blood.

As to treatment, strychnia gives probably the best results to tide over until function returns. The injection of tetrophan into the spinal canal has met with varied success. Antistreptococcus serum is recommended by some. Artificial respiration must be resorted to in case of paralysis of the respiratory muscles and the so-called "iron lung" probably would be most useful. If one can keep the patient alive for a week even with respiratory paralysis all symptoms will eventually subside, for in this, as in all other toxic sequelae of diphtheria, recovery is absolute and complete in the process of time.

DIPHTHERIA DEATHS IN INDIANA SINCE 1900
Per 100,000 population



DIPHTHERIA PREVENTION AND THE AMERICAN LEGION

H. J. NORTON, M.D.

Chairman Child Welfare,
Forty and Eight of Indiana, the American Legion.
Columbus

A preventable disease, diphtheria, continues to cause suffering, to cripple, to shorten lives, and to kill in our State, because of failure to apply simple, effective, cheap methods of prevention. Why?

The writer is required by the necessity of fact to convey to the profession that this is what the informed public is asking, and when they seek the answer, does not the medical profession, both individual and organized, come under the gaze of a critical eye? Is this business of disease prevention anything less than our social duty? Has not medicine by its own precedent in social usage and custom led social structure to expect from it an idealism of service to humanity that sees further than materialism, and has it not thus set up an expectation of performance which is now re-stated as "adequate medical care for all the people"? Reflect a moment on the country practitioner of only a generation or two past: did any one suffer or want or need so long as there was anything he could do about it?

Times have changed; social structure has gained complexity; technical advances are rapid; information to the public on medical subjects is inadequate and too often inaccurate; we are living through transition in social organization, with its attendant hysterias and opportunists. But do these things prevent us from emulating that country doctor who took care of his people to the last limit of his knowledge and ability? They didn't talk about socialized medicine in those days.

A portion of that public, the American Legion, has for some years sponsored diphtheria prevention as a part of its program for Child Welfare. The American Legion believes that diphtheria can and should be prevented. The American Legion is no more desirous of socialized medicine than is the medical profession, because socialized medicine is distinctly un-American in concept and application. However, the American Legion, a cross section of active, intelligent American life, knows that DIPHTHERIA CAN BE PREVENTED. The American Legion is, and will continue to be cooperative with the medical profession in the maintenance and furthering of the American way of living, but it rightfully expects organized medicine to lead the way in disease prevention.

As regards the medical phases of Legion Child Welfare work let me quote from the "Children's Charter," which is the ideal of accomplishment set forth by the National Child Welfare Division of the American Legion. It says in part: "For every child, health protection from birth through adolescence, including: periodical health examinations and, when needed, the care of specialists and hospital treatment; regular dental examination and

care of the teeth; protective and preventive measures against preventable diseases; the insuring of pure food, pure milk and pure water. * * * To make everywhere available these minimum protections of the health and welfare of children, there should be a district, county, or community organization for health, education and welfare, with full time officials, co-ordinating with a state-wide program which will be responsive to a nation-wide service of general information, statistics, and scientific research. This should include: (1) Trained full-time public health officials, with public health nurses, sanitary inspection and laboratory workers. (2) Available hospital beds. (3) Full time public welfare service for the relief, aid and guidance of children in special need due to poverty, misfortune, or behavior difficulties, and for the protection of children from abuse, neglect, exploitation, or moral hazard. * * * For every child these rights, regardless of race or color, or situation, wherever he may live under the protection of the American flag."

This, too, is an ideal. But how better can organized medicine serve the public and itself than in whole-hearted cooperation with this program?

Since 1933, activity in diphtheria prevention by the Indiana Legion has been continuous, through the work of the Forty and Eight. In that year the Governor made available a fund for the purchase of immunizing material. Since then no funds had been available until this year. Under the Maternal and Child Welfare provisions of the Social Security Act, funds are available for the purchase of disease prevention materials, by the State Health Authority, upon proper local request. This lack of funds has been one of the difficulties encountered.

COOPERATION OF PROFESSION

Another and more serious condition has been the lack of uniform and coordinated response from the medical profession to this work. It has been a basic consideration wherever this work was to be carried on that, first, the organized medical profession of the community should give their approval and cooperation. For the most part this was obtained but unfortunately, in some instances, it was not true, and the lack of cooperation resulted in considerable antagonism and lack of harmony of county medical societies in their public relations. Apparently these instances were due to inability to submerge distinction, or reach a satisfactory distinction between indigents and non-indigents in the carrying out of much needed public welfare work. The net result was no small amount of hard feelings on the part of the public, and aggravation of the symptom, "Socialized Medicine." Members of the profession who are Legionnaires

have responded uniformly, and in some instances, heroically. Since each county differs in its needs and the manner in which immunization work should be, or is, carried on, the problem is distinctly one for local solution by the cooperation of the county society with the other interested agencies in the community. It is hard to believe that in any community circumstances are such that diphtheria immunization cannot be worked out in a manner that will result in fair credit to the medical profession.

Because of these and other difficulties, the Legion activities have been accomplished by drives and campaigns which were recognized as undesirable and disconnected; however, they represented a manner of accomplishing, to a degree, the objective. That results have been accomplished is readily shown by reference to the continuous fall of diphtheria mortality over the past five years. All of this is not the result of direct Legion work; indirectly much public education has been accomplished, with resultant private practice increase in immunizations done. This year more intensive effort is being made by the Legion in public education in disease prevention, and it should be helpful as well to the profession in private practice.

PROPOSALS

It is proposed to set up as an ideal that every child in Indiana be immunized against diphtheria

on his first birthday; that every child upon entering school be Schick-tested, and re-immunized if needed.

It is proposed further that this can be accomplished by:

(1) The mailing of an educational pamphlet and "urgency" letter to each child (or his parents) on the occasion of his first birthday, by the Child and Maternal Health Department of the State Division of Health.

(2) The organization of a disease prevention committee in each county society to cooperate with (a) local American Legion posts, (b) local health jurisdiction, (c) local school authorities, for the accomplishment of a *continuous* program of diphtheria prevention work, based on follow-up of the educational letters sent out.

(3) The furnishing of immunizing materials by the State Division of Health, as under the federal provision for this purpose.

There is NO intent by the American Legion of encroachment upon private practice; there is every intent of cooperation in an American way to the filling of a need. The American Legion believes, simply, that diphtheria can and should be prevented. And everything that has been said of diphtheria applies equally to smallpox.

Why shouldn't every child born in Indiana have for a present on his first birthday protection against diphtheria and smallpox?

SULLIVAN COUNTY ROUTS DIPHTHERIA

As one of its activities in 1932, the Sullivan County Medical Society undertook to immunize with diphtheria toxoid all of the children in the primary grades of each school in Sullivan County. Each fall, soon after schools opens, the county nurse sends out, through the primary teachers, a blank asking the parents of primary pupils to consent to the immunization of their child against diphtheria. Only a very small per cent of parents refuse this permission, and this per cent grows smaller each year.

When the blanks are returned, two physicians and a nurse are sent to each school building and the immunization treatments are given. All the physicians in the county participate in the project so that the burden upon any one physician is not great. The nurses in the county volunteer their services and the county hospital supplies sterile material and equipment.

Nearly all the children in the first six grades of the schools in Sullivan County now are immunized. This year when the blanks were sent out the parents were invited to bring in their children of pre-school age and have them immunized. A considerable number took advantage of this offer and it is hoped to increase this number each year.

The records show the following figures for diphtheria in Sullivan County over a ten-year period:

Year	Number of Cases	Deaths
1928	13	4
1929	45	4
1930	13	3
1931	9	1
1932	20	1
1933	9	5
1934	8	0
1935	9	1
1936	7	0
1937	0	0

Whether or not these figures mean much, time alone can tell. Most of these cases have been pre-school age children, and it will be necessary to try to get more of them to come in for immunization at the time pupils in the primary grades are treated. The physicians in this county feel that they would much rather spend a little time in preventing this disease than in fighting it after it has attacked the child.

ENDOMETRIOSIS*

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This study comprises a review of 507 consecutive pelvic laparotomies done in females by my senior associate and myself during the three-year period between August 1, 1934, and July 31, 1937. Cases operated upon for acute or chronic appendicitis alone and Cesarean sections were excluded from this study. Endometriosis was found in 49 cases, or in 9.64% of all of the cases. In all except 3 of the 49, the entire disability was produced by the endometriosis. All of these cases were proved to be endometriosis by microscopic examination. In a few of the cases the true nature of the process could not be told by gross pathological examination. Thus we see that endometriosis, which is considered to be relatively rare by many, because routine microscopic examination of all tissue removed at operation is not done, is encountered frequently by the general surgeon.

Ectopic endometrium can be found in many locations. It is best classified as internal endometriosis or external endometriosis.

Endometriosis interna is found as heterotopic glands in the deeper part of the wall of the uterus or tube.

Endometriosis externa is found in many and varied locations:

1. Intraperitoneal: (a) on the outside of the uterine wall; (b) on the outside of the tube wall; (c) on the intestines; (d) in the ovarian, round or broad ligaments.

2. In the ovary (adenomyosis or adenofibrosis).

3. Extraperitoneal: (a) in the rectovaginal space; (b) in abdominal scars; (c) in the umbilicus; (d) in the bladder or vaginal wall.

This classification is according to Otto Neumann.

The exact histogenesis of endometriosis is still much debated. The theory of Von Recklinghausen,¹ that endometriosis begins from embryonic rests, has been largely discarded because embryonic rests of all sorts are rare. Halban,² of Vienna, many years ago advanced the theory that all endometriomata were metastatic growths, beginning in the endometrium and traveling through the lymph channels. This theory is almost completely discarded, for only a few have ever seen endometrium in lymph channels and its spread is in no way similar to that of pelvic cancer metastasizing through the lymph channels.

Sampson's³ transplantation theory is that endo-

metriosis represents growths of pieces of endometrium which have been regurgitated in menstrual blood backward through the tubes. That endometriosis is a process occurring during menstrual life, that retrograde menstruation does occur and that endometriosis is seen more often in pelvic abnormalities which would tend to cause retrograde menstruation as retroversions, cervical structures and in association with fibroids is definitely established. Cron claims to have proved that cast-off menstrual mucosa is viable and he cultivated it in vitro for one month and maintained its activity by a process of recultivation. A review of his work reveals that the cast-off menstrual mucosa was removed with a dull curette and did not increase in volume during the growth. Sampson believes that the spread in some cases may be by blood or lymph channels and he has demonstrated endometrial tissue lying free in both blood and lymph channels.

The serosa or celoma theory is held most likely by most European pathologists. Essentially, it is that epithelium of the entire female genital system has a common ancestor in the primitive peritoneum, arising from the celomic epithelium of the urogenital folds. Thus we see that the surface of the ovary, the lining of the follicles, the endometrium, endocervix, endosalpinx, and vagina all have a common ancestor in the peritoneum.

Fischel has shown that the celomic epithelium does not use up its developmental potentialities and may awaken in later life to new activity and produce differential structures identical with those which it produced when in the embryonic stage. Thus it is supposed the tubal, ovarian or pelvic epithelium may produce endometrium-like structures which possess both the morphology and function of true endometrium. By this theory all endometriosis can be explained, even that of the umbilicus and inguinal canal. Endometriosis of the inguinal canal and umbilicus are not to be explained on a transplantation theory. Supporters of Sampson's theory ascribe them as due to changes in the embryological peritoneal processes which are found in the two locations, the processus vaginalis peritonei and omphalomesenteric duct.

Shiller⁴ does not believe that cast-off endometrium is capable of growth. He says he never has seen endometrium in lymph or blood vessels. He firmly believes that cast-off endometrium cannot become implanted because it has never been seen in the act of implantation, while carcinoma cells can definitely be seen implanting on the ovary in a case of Krukenberg tumor.

The last word has yet to be written on the histogenesis of endometriosis. However, until dissemination by implantation is completely disproved, the safest policy for the surgeon is to assume not only its possibility but its likelihood.

Ovarian endometriosis or chocolate cyst of the ovary shows no uniformity in its activity or ex-

* Presented before the Section on Surgery of the Indiana State Medical Association at the French Lick meeting, October 5, 1937.

¹ Von Recklinghausen, F.D.: "Die Adenomyoma und Cystadenome der uterus und Tubenwandung: ihre Abkunft von Resten des Wolff'schen Körpers". A. Hirschwald 1896.

² Halban, J.: Metastatic Hystero-adenosis. *Wein. Wechschr.* 37:1205, 1924.

³ Sampson, J. A.: Perforating hemorrhagic (chocolate) cysts of ovary, their importance and especially their relation to pelvic adenomas of endometrial type, *Arch. Surg.*, 3:245, (September) 1921.

⁴ Shiller, W.: Lectures in Gynecological Pathology, at the 2nd Univ. Frauen Klinik, Vienna, 1936.

tent. It occurred in 33 of the cases or 67.3% of the total. Ovarian tissue was removed in 329 cases of this series. Thus, ovarian endometriosis was found in 10% of the cases in which ovarian tissue was removed. It undoubtedly occurs frequently without doing serious damage and undergoes spontaneous retrogression. In other cases it progresses to produce disabling symptoms and goes on to produce practically complete destruction of the ovary with the formation of dense adhesions to surrounding structures. The condition was found bilaterally in four cases. The cysts themselves are usually lined with a low cuboidal epithelium. Surrounding the cysts is a tissue almost exactly resembling that of the uterine mucosa in which is found tubules similar to those found in the normal endometrium and which pass through the same phases of the menstrual cycle with discharge of catamenial blood and desquamation of the lining epithelium. Many of these cysts rupture and produce a reaction of the peritoneum which leads to the formation of dense adhesions.

Extreme care has been exercised not to confuse hemorrhagic corpus luteum and follicle cysts with the true endometrium. Some of the former have chocolate or tarry contents and can be differentiated from endometrium only by microscopic examination. In 9 of these cases, or 27%, the rupture of a large cyst was manifested by the sudden onset of acute pelvic peritoneal symptoms with excruciating pain, nausea, vomiting and rigidity.

The adhesions of endometriosis subjectively cause pelvic pain and distress. While remissions are seen, the general course of these cases which have come to surgery is a progressive one with 19 of the 33 cases of ovarian endometriosis having acquired a dysmenorrhea which was becoming progressively worse. Neither menorrhagia nor metrorrhagia was found as an outstanding symptom.

As one's familiarity with this condition increases, more and more cases are correctly diagnosed or suspected preoperatively. The combinations of pelvic pain, an acquired dysmenorrhea, the common presence of an irregular pelvic mass with the obvious absence of an infectious etiology in a woman between the ages of twenty-five and fifty must make one very suspicious that the process is endometriosis of the ovary. If the case can be observed over a period of months, the symptoms and findings usually become worse while in pelvic inflammatory conditions improvement is noted unless repeated infection has occurred.

Endometriosis was found on the peritoneal surface of the uterus in many cases in which the ovary was involved. It was found in the wall of the uterus in 11 cases or 23.4% of the total cases. The average age for this group was above forty. All of these 11 cases sought medical aid because of vaginal bleeding. Six of the cases had had profuse vaginal bleeding for one or two months. The re-

mainder complained of menorrhagia and occasional metrorrhagia for one to two years. Aching and pain in the pelvis was frequently encountered and two patients in which the rectovaginal space was involved complained of pain on defecation. Dysmenorrhea occurred in about half of these cases. The uterus was seldom enlarged to more than twice normal size. These uteri appeared congested and often had a faint bluish tint when first brought into view. Irregularities of the posterior surface of the uterus were frequently observed.

Primary endometriosis of the tube was found in four cases or 8.2%. Three of these cases were diagnosed as ectopic pregnancy preoperatively. In two of the cases it was felt at the time of operation that we were dealing with an old ruptured ectopic pregnancy. All of these cases complained of relative sterility. The onset in three was acute with lower abdominal pain and peritoneal symptoms. However, in general, it may be said that there is nothing characteristic about the symptomatology of endometriosis of the tube.

The appendix was the seat of an endometriosis in one case in which there was no other pelvic involvement. A diagnosis of chronic appendicitis was made preoperatively in this case. In three cases with extensive endometriosis of the peritoneum, the appendix was involved in the process.

The progress or retrogression of endometriosis depends on the presence or absence of hormonal stimulation from the ovary. Therefore, two methods of treatment are available. Surgical removal of the growth when possible is to be desired in all large lesions and in all patients below the age of 40. In patients who have extensive involvement of both ovaries, a small amount of ovarian tissue can usually be spared regardless of how extensive the growth has become. In cases in which small amounts of ovarian tissue have been saved, there have been no recurrences up to the present time. If the peritoneum and bowel and pelvic organs are extensively involved, resection of most all or all ovarian tissue will effect a retrogression of the lesions to such an extent that almost complete symptomatic relief will occur. Only adhesion will remain if this procedure is carried out. X-ray therapy was not used in any case. I feel that it is indicated only in patients above the age of 40, with lesions that are not large, and in whom one feels fairly certain that the diagnosis of endometriosis is correct.

Adenomyosis interna, or endometriosis of the wall of the uterus, is not helped by curettage. When the patient is over 40 years old and has bled profusely, fibroid of the uterus, hypertrophic endometrium, and endometriosis of the uterus are to be differentiated. If a diagnostic curettage reveals a normal endometrium, the abdomen should be opened and a hysterectomy performed. Hysterectomy is preferred to x-ray or radium therapy which is of value only inasmuch as it decreases ovarian activity.

CONCLUSIONS

1. Endometriosis is commonly encountered by the general surgeon in women between the ages of 25 and 50.

2. Acquired dysmenorrhea and pelvic pain with a mass in the pelvis which increases in size should make the physician suspicious that endometriosis is present.

3. Hemorrhage and pain are usually encountered in adenomyosis interna or uterine endometriosis.

4. Early recognition of endometriosis of the ovaries, particularly in young patients, if properly treated will save extensive destruction of ovarian tissue and the prevention of disabling symptoms.

5. A review of 507 pelvic laparotomies, excluding cases operated for acute or chronic appendicitis alone and Cesarean sections, was made. Endometriosis was found (a) in the ovary in 33 cases; (b) in the uterus in 11 cases; (c) in the tube in 4 cases; (d) primarily in the appendix in 1 case and secondarily in the appendix in 3 cases.

6. The fact that endometriosis is considered to be rare by so many is probably due to the fact that routine microscopic examination of all tissue removed at operation is not widely done.

DISCUSSION

E. V. WISEMAN, M.D. (Greencastle): Dr. Hurley has given us an excellent paper on endometriosis and a very good review as to the etiology or histogenesis of this condition. As he has said, the last word has not been written on this subject. It seems that the serosal theory more nearly explains all cases. However, the transplantation theory is not without some merit because any of us who have done very many of these cases and have left ovarian tissue have seen transplants grow in laparotomy wounds and bleed at menstrual time. The treatment of this condition is primarily surgical. Dr. Hurley's results have been better than mine. In several cases I have tried to leave ovarian tissue only to have the patient bleed from the cervical stump after hysterectomy and have her same old pain. Many of the better men recommend leaving some ovarian tissue in all young women. Some women are reported to have become pregnant, delivered offspring and been free of pain. That has not been my experience with true endometriosis.

DR. HURLEY (closing): I think one should be conservative and leave ovarian tissue if possible. We have been fortunate in the cases in which we have left it that we have not had a recurrence. Of course, x-ray therapy in case of recurrence of the same symptoms or recurrence of the growth will give good results. When there is no active ovarian substance present, any endometrial process will undergo regression within a relatively short period of time.

A STUDY OF APPENDICITIS

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Indianapolis

Since the significance of acute appendicitis was first definitely recognized by Reginald Fitz of Boston in 1886, a great deal has been learned about the treatment of the lesion and its complications, but we still find ourselves face to face with a very high mortality. The exceedingly high mortality does not attend acute appendicitis without complications but it does attend complicated cases. With these facts in view, we decided to review all cases treated in the Indianapolis City Hospital over a period of three years, not alone to report statistics but also to make, if possible, constructive criticism and offer some suggestions for management of future similar cases.

Statistics seem to point to the fact that appendicitis is on the increase, but most authors believe this to be untrue. They feel that the condition is merely recognized more frequently. This conclusion seems unreasonable to us because one has to see but few patients to realize that the laity is appendicitis conscious, which is, for the most part, a fine thing. It is reported that appendicitis is more common among highly civilized than among primitive people, and more common among city dwellers than among those living in the rural districts. This may be actually true, or it may be due to more accurate statistics in cities. It has, however, been frequently noted that people of rural habitat who have moved to the city and lived a new, more strenuous life often suffer their first attack of acute appendicitis. Dietary changes have been accused of producing the lesion, but no proof of this exists. Different classes in the same city suffer the same from the disease, but comparison of the statistics of charity institutions and private institutions points to the fact that charity cases are seen by the surgeon later and thus the mortality increases. The disease attacks those between the ages of twelve and thirty years most frequently, but is reported in all ages. Most authors find the disease more common in males than in females, but our series shows slightly more females, with 50.3% of the cases females, as compared to 49.7% males. This series points out no good evidence of familial predisposition to appendicitis.

Our studies put no light on the etiology of the disease, nor do they offer any explanation for the difference in the way people handle what appears grossly and microscopically to be identical pathology in the appendix.

The symptoms in the order of their importance, as shown by the review of these cases, are as follows:

1. *Pain.* The pain was typically insidious in onset, the patient often complaining of only discomfort or a dull pain; but less frequently the onset was sudden and the pain severe. The pain

was almost always described as intermittent in character. The area first involved in over half of the cases was the epigastrium, but in almost as many cases the pain was first noticed in the right lower quadrant. Less frequently the entire abdomen was said to be involved or occasionally the entire right side. Those cases seen after rupture frequently pointed out how pain may so definitely subside after rupture.

2. *Point Tenderness.* This was one of the most important signs, being particularly noticeable in children. Those children who could put one finger on the area of maximum tenderness nearly always proved to have appendicitis when that area was on or near McBurney's point. This sign was also very helpful in adults, but was not as constant as in children.

3. *Nausea.* In some cases the first symptom was a feeling of nausea, but this was far from common. During some part of the illness, however, over 70% of the cases had some nausea. The symptom was often constant from the onset of the illness to the time seen by the examining surgeon. Few patients were able to differentiate this nausea from that due to unwise eating.

4. *Temperature.* Admission temperature ranged from subnormal to 105°, but by far the majority had a temperature between normal and 100°. Apparently sick patients, with only slightly elevated temperatures, seemed to be very helpful in making an accurate diagnosis possible. In those cases treated conservatively, the temperature was useful as a guide in the progress of the disease, rising when the infection was increasing in severity.

5. *Muscle Rigidity.* This sign was many times recorded as merely a suggestion of rigidity in the right lower quadrant. This type of record is not helpful because rigidity, be it ever so slight, is either present or not present and should be recorded as such. Many patients had definite point tenderness and no rigidity was elicited. This sign did seem to be useful, however, being definitely present in most acute and complicated cases.

6. *Leukocytosis.* Except in a few fulminating cases and a few very mild cases the white blood count was invariably elevated. This elevation ranged from 10,500 to 50,000, but in the majority of cases the count ranged from 11,000 to 16,000. The differential count, when done, showed an increase in the per cent of neutrophils.

7. *Vomiting.* When this symptom occurred it was helpful but it was far from constant and, in our opinion, its absence should not influence the surgeon in the least. This symptom attends most far advanced and complicated cases, but too often it occurs after the surgery should have been done. Vomiting is far more constant in text book discussions of appendicitis than it is in actual early cases.

8. *Dysuria.* It seems to us that this symptom is present far more frequently than it is mentioned

in text books. The burning pain was usually described as slight, but, nevertheless, present. In contrast to the pulling sensation in the abdomen on urination, as described in acute pelvic infections, it appeared to be very helpful.

9. *Bowel Irregularity.* Constipation, so often inferred by the examiner because the patient resorted to the use of physic for the relief of pain, is an inaccurate observation and was not present in more than half of our cases. Diarrhea seemed almost as frequent as constipation. In many cases no clear cut change in the condition of the bowel was noted.

Complications in this series are listed as:

1. Perforation with localized peritonitis.
2. Perforation with abscess formation.
3. Perforation with generalized or diffuse peritonitis.

Other complications that occurred in complicated and often fatal cases were subphrenic abscess, multiple abscesses of the liver and other organs, phlebitis and pneumonia. Some of the fatal cases which showed marked sepsis, jaundice, and a rapid, downward course, may have been due to bacterioides infection, but we have no cultures of the pus, or blood cultures to prove the same.

Our studies do not reveal the number of mistakes made in diagnosis since we reviewed only appendicitis as shown by a microscopic report. The few cases operated for chronic appendicitis which showed on section no pathology in the appendix were those, for the most part, suffering from salpingitis or ovarian cysts.

The prognosis in uncomplicated cases of chronic or acute appendicitis has been very good in our hands, but with complications it has been far from satisfactory, as will be pointed out by the following statistics.

Over a three-year period there has been a total of 1,142 cases of appendicitis treated in this institution with 54 deaths, giving a mortality for all cases treated of 4.72%. Of these 1,142 cases, there were 575 females treated with 23 deaths, a mortality of 4%, and 567 males treated with 31 deaths, or a mortality of 5.4%. The higher mortality in males means that either males handle the infection less satisfactorily than females or that they put off seeing a doctor longer and are less apt to consult a physician for slight attacks. The latter explanation seems more likely to us.

The mortality for all cases treated in 1934 was 4.5%; in 1935—6.9%; and in 1936—2.08%. This is encouraging and, if deaths do not increase in the last eight months of 1937, the rate should be even lower than in 1936.

Of the total cases treated, 596 were shown by microscopic study to be chronic with 11 deaths and a resulting mortality of 1.84%. Of the 11 deaths one was in a case complicated by rather severe chronic glomerulo-nephritis; one was complicated by coronary heart disease; one at autopsy showed peritonitis not recognized at operation;

four died an anesthetic death, dying during or just following induction with ethyl chloride. Had these anesthetic deaths not occurred, the mortality could have been reduced to 1.1%, or nearly half, which conclusively shows the horror of careless and unwise anesthesia. These deaths may not have been due to careless anesthesia because we are aware that nearly all anesthetists at some time in their practice lose a case or cases, but we mention this to emphasize the importance of every precaution in giving an anesthetic. The importance of a careful physical examination and a well elicited history before surgery when at all possible should be emphasized.

There were 371 cases of uncomplicated acute appendicitis with three deaths for a mortality of .808%. This is the most satisfactory of all the groups. Why the mortality for acute appendicitis is lower than for chronic appendicitis is hard to answer. It seems logical to assume that this is due to some carelessness before, during, or following surgery in those cases in which very little pathology is anticipated or found. We suggest this because every surgeon and student of surgery is impressed by the fact that patients expected to die in surgery rarely do. Those who die are the least suspected of doing poorly. This must, in many cases, be due to someone's carelessness. Another explanation is that in the chronic appendicitis there were more aged patients and more very young patients. We all know that either very young or very old patients are poor surgical risks. Nearly all the cases of acute appendicitis were treated with appendectomy without drainage. This must be the treatment of choice. The old saying of "When in doubt, drain," has by many been changed to "When in doubt, don't drain." Drains are very helpful when indicated but one must not be careless with their use because it must be remembered that drains not only carry infection from the abdomen but also carry infection into the abdomen. We must also remember that an abscess can be drained but the entire abdominal cavity can not be drained.

Acute appendicitis with localized peritonitis was present in 139 cases with 34 deaths, giving the mortality of 24.4%. Why is this mortality so high? (1) The average time elapsed between the onset of the illness and examination was 48 hours or over, many times being 72 hours, and in a few instances even longer. Seeing patients so late adds greatly to the incidence of rupture and to the ensuing complications. Seeing patients earlier is accomplished much better in private practice than in an institution such as this hospital. An effort must be made to educate the lower classes to consult a doctor earlier. This will be difficult, but by some means must be done. (2) Most patients we treat here are not as healthy and do not make as satisfactory surgical risks as do people seen in private practice. (3) It is our belief that, as many years ago a famous surgeon said, "Too many patients are subjected to appendectomy when it is

too late for an early operation and too early for a late operation." Patients seen on the third or fourth day after the onset of their illness, all other things being equal, should be treated with bed rest, large doses of morphine, nothing by mouth, no enemas unless distention is incompatible with life, and intravenous glucose in normal salt. There are, of course, many exceptions to this general rule, but we believe it is a less dangerous rule to follow than the one that says, "When a diagnosis of appendicitis is made, surgery is indicated." Our view is taken with the thought that after 72 hours of appendicitis, complications—if any are going to start—will have occurred, and the body's defense mechanism is best when it is bothered least by the surgeon. If, under such conservative treatment, improvement does not occur, then surgical interference may be considered. We have tried the radical side and the mortality is deplorable. Is it not good judgment to try the conservative? Lest we be misunderstood, let us again emphasize that being radical with early appendicitis is, after all, being conservative when one glances at the difference between complicated and uncomplicated case mortalities. When surgery in late cases is indicated, what procedure should be followed? This, of course, depends a great deal upon the case.

Of the 139 cases treated, 11 had only appendectomy and 2 deaths resulted for a mortality of 18.1%. Of these cases, 94 had appendectomy and drainage and 19 died for a mortality of 20.2%. Drainage alone was instituted in 17 cases, 4 dying for a mortality of 23.5%. A Witzel enterostomy was done in 2 cases, 1 dying for a mortality of 50%. Appendectomy and appendicostomy was instituted in 5 cases, 2 dying for a mortality of 40%. Those not operated numbered 8. Of these 6 died with a mortality of 75%. Two cases signed their own release. The lowest mortality attended those who had only appendectomy. These cases, however, did not appear from the chart to be very severe cases. Appendectomy and drainage seemed to be the most satisfactory procedure. Drainage did not appear as satisfactory and probably should be reserved for cases in which the appendix is almost impossible to remove or, at least, without contaminating the entire abdomen. Witzel enterostomy is probably not to be preferred. Appendicostomy in this series was done on late cases and though the mortality attending it was high it probably has a great deal of merit and should, perhaps, be used more. Of the 8 not operated, the 6 that died were moribund on admission, and the 2 that were not, survived. The 2 patients who signed their own releases probably went to a private doctor and we have no record of their ever returning.

Acute appendicitis with abscess formation was found in 32 cases with 4 cases ending fatally, giving a mortality of 12.5%. This lower mortality is to be expected because of a less virulent causative organism as evidenced by the body's ability

satisfactorily to localize the infection. These cases were, in most instances, seen later than the former group, which makes us feel that the body without the meddling of a surgeon can frequently localize the infection if given sufficient time.

The best treatment for an appendiceal abscess is a great question. Many good surgeons advocate only drainage. In the series 19 were treated with appendectomy and drainage and no deaths occurred. Of the 5 cases that were treated with drainage alone, 2 deaths occurred, giving a mortality of 22.2%. There were 2 cases which were treated with enterostomy and drainage with no deaths. One case was moribund and not operated, another had diabetes and coronary heart disease, was not operated and died. These figures would tend to show that appendectomy and drainage or drainage of the abscess with relief of intestinal obstruction by enterostomy or appendicostomy were the best forms of treatment. However, the cases in which drainage alone was instituted may have been more severe cases so no logical conclusion can be made from a review of cases not actually seen. We, personally, feel that when the appendix can be removed without too much injury to the body's defense mechanism, it should be done—but when there is danger of spreading the infection by extensive manipulation, drainage should be relied upon with a routine appendectomy four to six months later. This interval operation should be done because the incidence of recurrent attacks in cases with the appendix left in is in most instances quite high and each attack tends to be more severe. In cases with widespread peritoneal involvement, relief of bowel obstruction with an appendicostomy or enterostomy seems advisable and perhaps should be done routinely as some advocate in cases of appendicitis with perforation. It is most important in all cases to remove all available pus and fluid by aspiration, no matter what further treatment is instituted.

In this series only 4 cases were described as having generalized peritonitis. Of these 2 died, giving a mortality of 50%. One fatal case was treated with appendectomy and drainage and 12 days later an enterostomy. Relief of the bowel obstruction at the initial operation might have saved the patient. One case was treated with appendicostomy and this patient recovered. If death in generalized peritonitis is due to bowel obstruction, which it probably is, it certainly seems advisable to attempt to relieve this condition. The other 2 cases were treated with appendectomy and drainage. One patient recovered; the other died. About the treatment of generalized peritonitis, with 50% or 95% alcohol, as advocated by some, or with ether or normal salt lavage, as suggested by others, we know nothing.

CONCLUSIONS

In conclusion we wish to state that while these above statistics compare favorably with other reported series in charity institutions, they definitely

point out the tremendously high mortality in the complicated cases of appendicitis. We have attempted to make a few helpful suggestions in the diagnosis and treatment of this disease. Those worth repeating are:

(1) The importance of treating early appendicitis, be it ever so mild, with immediate surgery.

(2) The importance of educating the laity to seek medical advice early when troubled with pain in the abdomen attended by a nausea and, further, not to resort to cathartics.

(3) The importance of culturing the fluid about a ruptured appendix.

(4) The importance of conservatism in treating adults with acute appendicitis of three or four days duration.

(5) The importance of not interfering too greatly with the body's defense mechanism in surgery.

(6) The importance of surgically attempting to combat intestinal obstruction when the original operation is done.

(7) The importance of attempting to relieve distention by the Levine tube in postoperative patients and in those being conservatively treated.

303 HUME-MANSUR BLDG.

ABSTRACT

CANCER OF THE THYROID

In their series of 15,522 thyroid operations on 12,946 patients, HUGH F. HARE and NEIL W. SWINTON, Boston (*Journal A. M. A.*, January 29, 1938), encountered primary malignant disease of the thyroid 314 times, an incidence of 2.4 per cent. In the five-year period following January 1, 1932, eighty-eight patients were treated. In this more recent group, improved results were obtained, owing primarily they believe to improved radiation therapy. The results of treatment during the last five years as compared with the series reported in 1932 are given. Improved results are noted for adenocarcinomas (group 2) and the carcinomas and fibrosarcomas (group 3), while no improvement is noted for the fetal adenomas and papillary adenocystomas (group 1). For group 2 the mortality has fallen from 54.8 to 14 per cent, and in the small cell cancers (group 3) the mortality has fallen from 77 to 33 per cent. One of the two fibrosarcomas (group 3) in the second series has proved radiosensitive, the patient having gone one year without evidence of recurrence. Not one of the giant cell cancers (group 3) in either series has thus far been proved to be radiosensitive. It is too early to evaluate properly the end results following combined surgical and protracted radiation therapy in thyroid cancer; however, the following conclusions regarding the management and treatment of malignant disease of the thyroid seem warranted: 1. The preoperative diagnosis of cancer of the thyroid is not accurate. A microscopic study of removed tissue must be done to establish the diagnosis. 2. Surgical treatment alone has proved to be unsatisfactory. If improved end results are to be attained in the treatment of all thyroid neoplasms, emphasis must be placed on adequate postoperative radiation therapy. 3. The experiences of the past five years have shown that the cancerocidal dose is between 3,000 and 4,000 roentgens delivered to the tumor. Once the diagnosis has been established by an experienced pathologist, radiation therapy should be given in all cases to this amount.

CARREL-DAKIN TREATMENT OF OPEN WOUNDS*

J. C. DONCHESS, M.D.

Gary

With increasing industrial output medical men have been asked to treat a high percentage of open wounds in general practice. Where there are active factories, shops, and plants one will find accidents and many injuries. Likewise, where there is work there will be money and luxuries or necessities of the automobile, which in turn leads to collisions on the highway and more injuries. Since every traumatic wound is considered unclean, one should be chiefly concerned in preventing bacterial growth in or beside the wound.

Through the knowledge of morphology and habitat of bacteria, the offensive attack with asepsis, commended first by Lister, healing of surgical wounds by first intention has continued to be a conquering event. A clean wound needs no bactericidal help; it will promptly heal by nature's own reparative methods.

Unfortunately, all open wounds incurred by accidents directly or indirectly become unclean and contaminated by one or more types of bacteria. Initial cleansing followed by one of many antiseptics, and a prayer that the wound will heal by first intention, is the usual procedure in every case. The game of chance sooner or later takes a holiday and infected wounds begin to stand high on the score board. The explanation is simple when one considers the faith we have in a thin, brightly colored film of antiseptic solution. Surely a few molecules of antiseptic material cannot stand up fighting forever against units of multiplying staphylococci or unlimited chains of streptococci. Either the bug or the antiseptic becomes dominant. Secretions of the open wound wash away the antiseptic material neighboring its border. Cavities refill with secretion, but will there be bullets of the antiseptic left to massacre the slightest inkling of bacterial life? The blood stream may provide antitoxin in some low grade infections; however, local abscess, lymphangitis and blood stream infection may ensue, life is endangered and the infected wound may be of second importance.

We are apt to be ultra modern at times by accepting the last word in treatment of wounds from advertisements of untried methods and colorful medicinals. Forceful salesmen often change drugs dispensed by medical men. Whenever the magic pink-colored one hundred per cent cure antiseptic heals by simply smearing it on dead tissue and unclean wounds, we shall all have perfect results and less worry. The media in unclean wounds is ideal nourishment for colonization of any kind of bacteria.

In the late war the application of Carrel technic with Dakin's sodium hypochlorate solution irriga-

tions proved to be one of the most valuable developments in the treatment of infected wounds. It is a generally known fact that during the early part of the late war the hospitals of France were crowded with infected wounds. Large wards were filled with pus cases of the many different varieties. The matter of dressings, which had to be done frequently because of the excessive secretion and formation of purulent material, became an almost unmanageable problem. Odoriferously speaking, the smell in the wards was not unlike the fragrance of the barn yard. It became a matter of importance to make the hospital quarters inhabitable. All the known antiseptics, boric solution, iodine, potassium permanganate and others were tried and tested with very unsatisfactory results. Fortunately, Carrel and Dakin solved the problem by instituting their technic. The end result was a great contrast since wounds became clean, healing became more rapid, convalescence much shorter, there were less complications and fatalities and the wards became odorless and passable.

The men who contributed this important method of treating wounds trained certain individuals in the preparation of the antiseptic solution essential in the specially prepared wound. However, in the following years the proper technical steps were abused. Poorly prepared batches of Dakin's solution reached not too well prepared wounds, with bad final effects. Many surgeons became alarmed to the extent that they discontinued the administration of Carrel-Dakin principles. However, a few men in this country who worked with Carrel and Dakin observed and noted the advantages in their procedure. Likewise, they foresaw the disadvantages of the many other different solutions which, when tried, were found to be lacking in one qualification or another. During the past few years, in the category of therapeutic attack against infection, this method in the hands of many surgeons has almost gone into oblivion. Many of our best medical centers do not teach or demonstrate the Carrel-Dakin treatment to the young apprentice in medicine, so it is no wonder that dakinization has been in the background these years.

Improper application of Carrel-Dakin technic has not infrequently resulted in biased opinion of its true value in saving limb and life. With many men, dakinization seems to be the last weapon in fighting infection after other methods have been tried and failed. Any treatment which is good enough to use on the last down has equal or greater potentialities on the initial down, particularly when one can prevent grave results. With Carrel-Dakin treatment it is not so much a question of fighting infection in a primary wound as it is maintaining a clean, healthy granulation tissue to complete rapid healing and to prevent infection.

Since the inauguration of Carrel-Dakin treatment during the World War, this procedure has been used almost exclusively to conquer infection in the U. S. Steel Wards under the guidance of

* Presented before the Lake County Medical Society, November 11, 1937.

Dr. W. O. Sherman, who studied with Carrel and Dakin in France. The Steel Wards, like the station hospitals, prior to the initiation of Carrel-Dakin technic, were packed with badly infected pus cases; today, we rarely see a primary infected case. There should be no question of the degree and severity of many of our badly traumatized cases.

It is the contention of the writer that when one of the largest industrial corporations in the country spends thousands of dollars to give its patients the very best in medical science, the merits of Carrel-Dakin treatment surely must have advantages over any other contribution known in the sterilization of infected and non-infected wounds. From the chief surgeon's nearly two-decade report of more than 7,000 fractures, over thirty per cent of which were compound, and in addition to the many thousands of ugly and dirty wounds treated by this method, one would find less than one per cent of infected wounds.

The principles in Carrel-Dakin technic must be carried out in detail for the best results. Supervision by the doctor is essential. Laziness and negligence may easily lead to bad results with this treatment, for the reason that it takes grit, time and patience in many cases to do a clean job. Failure to comply with detailed application of this method has invariably led to criticism in favorable acceptance of this treatment. The Dakin's solution in some instances was not properly prepared and in other instances the Carrel technic of debridement was improperly done, accounting for untoward results.

In the treatment of traumatic wounds, along with debridement when indicated, Dakin's solution is the most important offensive weapon we have to conquer infection. The active ingredient is sodium hypochlorite. The preparation of Dakin's solution years ago was a difficult procedure requiring exactness for proper neutralization. Often the solution was prepared and applied as a very caustic alkali. Solution containing over 0.5 per cent of sodium hypochlorite was strong enough to fight infection but at the same time it did a great deal of damage to the neighboring good skin and tissue. Formerly Dakin's solution was prepared by decomposing anhydrous calcium chloride with specified amounts of carbonate of soda and bicarbonate of soda in the presence of water. After the precipitant formed had subsided, the supernatant solution was filtered off and adjusted to the required alkalinity. The resulting fluid had to be clear and kept away from light and from temperature above 104° F. It took a few days to prepare the solution.

Today a very stable Dakin's solution can be prepared very inexpensively and as easily as numerous other antiseptics. Now Dakin's solution is prepared from a commercial product by the trade name of "hychlorite," the active ingredient of which is sodium hypochlorate 4.05 per cent. One part of hychlorite is added to seven parts of

sterile hypertonic saline or sterile water to give a standard solution. Titration of the solution is unnecessary. It is quite stable and need not be made up oftener than once a week. This gives one a solution containing about 0.5 per cent sodium hypochlorite. It is a non-irritating, non-caustic, and non-toxic solution, having high bactericidal power. The solution aids materially in cleansing and sterilizing wounds by dissolving and washing away necrotic tissue and old blood clots.

In addition, histologically the solution, unlike many other antiseptics, does not harm normal granulation tissue. Instead the fibroblastic cellular structure seems to work over time and produce rapid healing.

Final results in the preparation of the wound for introduction of Dakin's solution depends upon the thoroughness of the first surgical preparation of the wound for antiseptic irrigations. Adequate debridement is one of the essential points in Carrel-Dakin treatment. Immediate and thorough excision and removal of all tissues impregnated with dirt or hopelessly bruised, and removal of lifeless muscle, fascia, periosteum, skin, old blood clot, unwholesome bone and foreign bodies is essential. The wound edge should be dissected conservatively until a healthy bleeding surface is obtained. Since Dakin's solution is hemolytic, satisfactory hemostasis must be secured.

Local injection of novocain, one per cent, into the skin border is sufficient anesthesia to allow a thorough debridement of wounds of moderate size. In extensive, deep-seated or profound crushing wounds, a general anesthetic should be given to remove satisfactorily all mutilated or lifeless tissue. Considerable patience is required in all cases for thorough cleaning of the wound. Foreign material and blood clots are carefully and thoroughly curetted from fractured bone ends and fragmentary bone.

Delayed or incomplete debridement leads to infection, osteomyelitis, cellulitis, delayed or non-union and septicemia.

Management and application of tubes and dressings may be easily acquired after little experience. First, the area closely surrounding the wound margin is covered with vaseline gauze to protect the skin from Dakin's solution, which may infrequently irritate the skin.

Distributing rubber tubes are introduced into all pockets, under the skin flaps, angulations and recesses of the wound. The solution when introduced into the tubes should permeate the entire extent of every area of the wound. These Dakin tubes, for this reason, are distributed not more than one-half inch apart and they are placed on a thin layer of moist gauze compress overlying the wound surface. Several layers of sterile gauze compresses are placed over the tubes to fix them in the desired position. An absorbent cotton pad, through which perforate openings are made for the distributing tubes, is placed over the compress dressing and bandaged. Dakin's fluid, 0.5 per cent

strength, one to two drams, is introduced into each tube at two-hour intervals, since the action of the solution is continuous. In clean primary cases general dressings are changed every second day, while in the infected and purulent cases, where the secretion is excessive, dressings should be done every day. The limb is elevated on pillows, protected with rubber covered sheeting. A thick cotton pad or Turkish towel may be used under the extremity and over the pillow to catch any secretion or solution escaping through the dressing. Asepsis is essential. At no time does the gloved finger touch the wound or any part of the material placed in the wound. The surgeon manipulates with a pair of sterile forceps in each hand. The perforated ends of the Dakin tubes are frequently covered with Turkish toweling and are employed frequently where otherwise the antiseptic fluid at the wound site would escape too quickly to accomplish its purpose. When Dakin's solution is used in the presence of a plaster cast, it is advisable to build up an oiled silk dam inside a window around the wound to prevent softening and destruction of the cast splint.

The Carrel-Dakin treatment of wounds, the principles of which are herein described, is similar to the technic employed in Dr. William O'Neill Sherman's large surgical dispensaries and clinic. Since a great majority of the lacerations and compound fractures with which we have to deal come from severe traumatization resulting from falling sheets and plates of steel, crushing injuries sustained by direct violence, coming in contact with moving cars, cranes, and the like, it is essential that one resort to the best treatment, which will result in a minimum of infection, loss of limb, disfigurement, and mortality.

Let us first describe a primary compound fracture as cared for from the time of injury through hospitalization. (The treatment of simple open wounds is not unlike that of compound wounds, and for this reason the treatment of compound wounds will be discussed in detail.) Men in the mills and shops should be trained to fix or splint fractures so that the injured patient may be conveyed to the emergency station as comfortably as possible. Tourniquets should be applied at the place of accident to prevent excessive hemorrhage and shock. Appropriate treatment may be given at the emergency station. A simple sterile compress moistened in Dakin's solution is placed over the laceration at the site of fracture after removal of foreign material and cleansing of the wound surface. Hemorrhage is controlled by pressure bandage or clamps. Splints are applied and the patient is sent to the main hospital for immediate operation. In many cases the patient can be sent directly to the hospital. Naturally, the treatment of shock is essential at all times. At the hospital, shock preventive measures are introduced by keeping the patient warm, lowering the head, giving intravenous glucose, transfusion, etc. The patient is placed in a comfortable position. X-rays are

taken early when possible. The site of injury is examined and the open wound is covered by a moist, sterile Dakin compress. Large bleeders are clamped to prevent excessive loss of blood. The extremity is shaved and thoroughly cleansed outside the wound edge with neutral sodium oleate, ether and alcohol. Care is taken not to wash dirt from the skin border into the open wound. The same aseptic precautions are taken with all these traumatic wounds that one would take with any open abdominal wound. If the wound is less than one and one-half inches in length and the fracture not too extensive, debridement of the skin border and cleansing of the wound is carried out with or without local anesthesia. Moderate or large-sized wounds are carefully examined for bleeders which are clamped and tied with absorbable catgut suture. Old blood clot is removed and the wound is thoroughly explored in all its recesses down to and around the bone, inner and interstitial, under skin flaps and elsewhere. Debridement is done on all devitalized tissue. Incidentally, debridement should be done in as short a time as possible following the time of injury. Tissue impregnated with dirt is excised. Bone ends are curetted free from any extraneous particles.

Final treatment in all cases is decided upon during the early course of cleansing and debridement of the wound. Roentgen films are reviewed and an immediate final decision is made as to the best possible procedure for as good a reduction of the fracture as is possible. Final decision concurs one of the following: Simple reduction with molded plaster of paris coaptation splints; adhesive skin traction with a special splint; skeletal traction by use of Kirschner wires, or introduction of Sherman vanadium steel plates and screws.

In extensive compound, comminuted fractures where alignment by direct fixation methods is impossible, skeletal traction by means of Kirschner wire is applied. Lateral coaptation splints may suffice in some cases for good fixation of the fragments of the fractured bone. Dakin tubes and dressings are applied.

When the opening through the skin exceeds one and one-half inches in length and there is poor alignment of the bone ends, an immediate direct attack is made upon the bone and Sherman vanadium steel plates applied with Lane non-touch technic. The wound is left open and Dakin tubes and dressings are applied.

If the wound is less than one and one-half inches in length, secondary plating may be instituted ten to fifteen days after the injury when there is localized granulation, subsidence of swelling and less chance of lighting up a general infection. The wound is covered and protected. A new incision is made away from the open wound and is closed on completion of open reduction. Subsequent treatment is not unlike that of a simple fracture.

In any compound fracture, the wound is always left open. Where enlargement of the wound by

incision becomes necessary, part of the opening may be sutured and closed, but never in its entirety. Complete closure may lead to subsequent osteomyelitis, septicemia or loss of limb. Generally, the wound heals long before the patient is allowed to use the extremity.

Some of the most difficult cases that we have to deal with are crushing injuries where there is massive destruction to tissue with single or multiple bursting lacerations, and where an attempt is made to save every bit of tissue possible. Initial debridement may be delayed a few days to note any regeneration of traumatized tissue as recognized by color and bleeding edges. The extremity is elevated and frequent irrigation with Dakin's solution instituted. Debridement of sloughing tissue is done on subsequent dressings. Tetanus antitoxin is always given in these cases.

The treatment of infected compound fractures of four or more days' duration differs from that of a primary case. If there is present considerable backing up of pus as is evident by fluctuation, swelling, etc., the small sinus, if present, is enlarged to allow free drainage and proper attack to the infected cavity. No counter opening at dependent part is ever done. Intravenous or gas anesthesia may be necessary. Further incision may not be indicated if there is already present a gaping wound and the infected cavity is accessible. Irrigation and flushing with Dakin's solution is introduced until the antiseptic fluid passes out clear. Exploration is carried out for any foreign material which may be present. No attempt is made to carry out debridement as in the first seen primary compound fracture cases. In other words, the defensive wall already set up by the granulating tissue at the site of fracture is not disturbed excepting that some attempt is made to get at the very bottom of this infection. Numerous Dakin tubes are introduced with the usual compresses and cotton dressings. The marginal skin area is lined with vaseline gauze. At subsequent dressings, debridement of sloughing tissue is carried out until a clean granulating surface is procured. Dakinization is continued until granulation becomes complete with closure of the wound.

In the presence of a large gaping wound where closure is indicated, it may be done when the field becomes clean and sterile as shown by microscopic examination. Likewise in wounds where a sinus of moderate size finally remains and there is very little noticeable secretion, a small gauze strip drain may be introduced through the skin to encourage complete closure. The more experienced operator can tell from observation when a wound is sterile. For the beginner, microscopic examinations are essential for diagnosis.

The treatment of infected burn wounds can be managed very well with dakinization. Large infected and necrotic areas clean up remarkably well in a matter of a few days. Dakin's solution brings about a clean, bright red, granulating sur-

face in a short period. The convalescent period is shortened considerably and the patient feels much more comfortable. In very sensitive cases the Dakin's solution may be cut to 0.25 per cent strength.

In furuncles and carbuncles following incision Dakin's solution does marvelous work in permeating around channels of pus plugs by partially dissolving necrotic material which can be readily removed with forceps.

In extensive cellulitis, multiple incisions are made for free drainage, and many Dakin tubes are introduced into the wounds and under skin flaps. A large dressing is applied with periodic Dakin irrigations. The end results are always encouraging.

In any case when a large clean granulating area is present near the level of the skin surface Reverdin or Thiersch skin grafts are introduced after careful removal of thin film from the granulating surface is completed. A sterile field is noted as evident by microscopic finding.

Dakinization is continued until the wound is nearly healed when zinc ointment may be applied; when a large denuded skin area becomes sterile and ready for skin grafting; and when gaping wounds become sterile and ready for closure by layer suture.

A wound is considered sterile when the bacterial count or a smear shows an occasional cocci or diplococci in every four or five fields as corroborated at two or three consecutive microscopic examinations made at intervals of one or two days. Usually five to nine days are required to sterilize an infected wound.

Small open wounds and deep abrasions may be treated by cleansing and applying sterile gauze compresses which may be kept moist by applying Dakin's solution through the dressing every third or fourth hour with a medicine dropper.

In penetrating wounds of the abdominal wall or thoracic region, Dakin's solution should be used with precaution until there is a definite "walling off" of the wound from the main visceral cavities.

Recently ophthalmologists have been obtaining remarkable results by using fractional strength Dakin's solution. Results of treatment in corneal ulcers and infection of the eye will be reported soon by the eye men affiliated with our organization.

CASE REPORT

I should like to demonstrate a type of case with which we have to deal frequently. This patient, a male, age thirty-two, while working at the sheet mill on May 15, 1937, had his left leg caught in the jaws of an electric bucket. Following first aid he was brought to Mercy Hospital, where, under spinal anesthesia, a thorough cleansing of the extremity and wound was done and examination of the leg made. There was a ragged compound wound six inches long completely encircling the anterior, medial and lateral borders of both

bones, about two inches below the knee joint. There was some loss of skeletal structure from the comminuted ends of both tibia and fibula forming an excavation large enough to admit a fist. Another cavity extended about five inches downward along the medial side of the lower portion of the tibia where there was a large splint of bone missing. Periosteum in the main cavity of the wound was absent except for a narrow strip posteriorly. The great saphenous vein, anterior tibial artery and deep peroneal nerve were exposed and intact. The intact skin and muscle posterior to the wound was badly traumatized, though circulation to the foot was not completely impaired. There was a comminuted fragment of the bone lying lateral to the proximal end of the tibia and hanging on by means of periosteum. Debridement of both soft tissue and bone was done and the latter loose fragment of bone was inserted in its proper position; two holes were drilled into proximal tibia and fragment, and then fixed by number two chromic gut, forming a bridge across the cavity and connecting the lower or distal end of the tibia. The skin was partially closed on the lateral side, the cavity was packed with loose sterile gauze and Dakin tubes were inserted. The extremity was placed in a Thomas-Pierce splint and twelve-pound skeletal traction of the leg was maintained from Kirschner wire through os calcis. On the following day all stitches were removed and twenty-two Dakin tubes were inserted. The sterile wound began to heal rapidly. Nine weeks later a circular cast incorporating the lower two-thirds of thigh and foot was attached. Dakinization was discontinued. The patient was allowed to be up in a wheel chair. He has been walking with crutches since September 4, 1937, and putting light weight on the left leg, hoping to stimulate primary union. On July 21, 1937, a plastic bridging of the upper and lower skin edges of the wound was done. A small amount of secretion due to sequestra has persisted through a small sinus near the anterior middle portion of the wound. Without dakinization, we doubt that the extremity could have been saved. Infection would have set in and life would have been endangered.

CONCLUSIONS

1. No other method equals or surpasses the Carrel-Dakin method in the treatment of wounds, either in traumatic wounds where infection is to be prevented or in already infected cases.

2. Immediate, thorough debridement and careful exploration of the wound for extraneous material inhibits and destroys any possible chance of media formation for bacterial colonization.

3. The technic requires very careful supervision by the surgeon in charge. Aseptic routine management of instrumentation and handling of materials placed into the wound is essential.

4. Rarely is the Carrel-Dakin method contraindicated.

5. When the Carrel-Dakin technic is properly introduced and managed, infection is never encountered, as proven by its application at clinics where it is routine.

6. One compound comminuted case out of many treated is presented to prove and demonstrate the true value of Carrel-Dakin treatment.

ABSTRACT

CARCINOMA OF THE BREAST: VALUE OF PREOPERATIVE AND POSTOPERATIVE IRRADIATION

Reviews of records from clinics in different parts of the world and a postoperative study of their 400 cases of carcinoma of the breast belonging to clinical stage 2 treated more than five years ago in which operation took place more than five years ago convince GEORGE E. PFAHLER and JACOB H. VASTINE, Philadelphia (*Journal A. M. A.*, Feb. 19, 1938), that postoperative prophylactic irradiation is of definite value. Such postoperative treatment should begin, when practical, within ten days to two weeks after operation. Almost every physician has seen recurrent carcinoma of the breast disappear under irradiation. Similar treatment given to the cancer cells before the disease has adapted itself to the host and has become macroscopic should accomplish even better results. Preoperative irradiation should be employed within approximately two weeks before operation in cases of carcinoma of the breast in clinical stage 2. Doubtfully operable carcinoma and carcinoma in stage 3 are treated over a much longer time. The preoperative treatment is intended to devitalize the more malignant cells, which usually cause the surgical failures. Skilful preoperative irradiation, then skilful operation, followed by skilful postoperative irradiation should double the total number of persons with cancer of the breast remaining well five years. Statistics compiled from clinics in which both forms of treatment were used showed an improvement of from 11 per cent to 73 per cent when postoperative irradiation is combined with operation as compared with operation alone, according to different authors. Large collections of cases from the literature show a 25 per cent improvement. The average number of persons with carcinoma in stage 2 who survived when treated by operation alone, for a group of the best surgical clinics, is 28 per cent, while the general average for postoperative irradiation is 40 per cent. The authors' results with postoperative irradiation of carcinoma in stage 2 show 52 per cent, and when the cases in which preoperative irradiation was used are added it is 57 per cent.

ARE YOU PLANNING TO ATTEND
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THE PRESENT-DAY CRISIS IN MEDICAL THOUGHT

WILLIAM DE PREZ INLOW, M.D.

Shelbyville

THE UNSETTLED STATE OF PRESENT-DAY MEDICINE

This is an age of transition. In the fundamental sciences discoveries have been made and viewpoints put forward which threaten to destroy the fundamentals of our intellectual structure. A war unparalleled in magnitude has wrecked and impoverished nations. Everywhere a feeling of bewilderment and insecurity pervades, and one speaks of crisis.

The existence of a world-wide social and economic upheaval cannot be questioned. The far reaching effects of this on the physician and on forms of medical practice warrant separate consideration. I am concerned here with the so-called crisis in the intellectual sphere, in the domain of the arts and sciences. Art has always been one of the most sensitive barometers of the times. Of the divers arts only architecture seems to have achieved today clear forms of expression, pointing toward a new epoch. In the sciences the transformation in physics is so amazing as to be almost unbelievable and without parallel since the time of Newton. The questioning of axioms in mathematics, the new forms in logic, are indices of the critical and searching spirit permeating all mental activity. Science, only yesterday looked to as to a god, has lost in sanctity. It alone stood as guaranty for stable and continuous progress. Now many have forsaken it to seek wisdom in mysticism and metaphysic. Is it any wonder, then, that medicine, itself in part a science and so interwoven with many sciences, should be caught in the maelstrom of this seemingly untoward influence?

Many, therefore, have spoken and are speaking of the contemporary crisis in medicine.¹ It is significant that nearly all writing on this subject has emanated and is emanating from German speaking countries. The many similarities between

the conditions existing in Central Europe today and those present following the Napoleonic wars are striking. The stage set is largely that on which the drama of German romanticism was played a little over a century ago. Given the fine qualities of the German mind, the Teutonic penchant for philosophy, widespread physical want, and lack of means for prosecution of medical research, it is small wonder that many medical scientists have turned scholar and scanned with critical eye the present situation in medicine.

It is said that medicine has lacked soul, that the ill advised overgrowth of techniques has dulled the senses and left untrained the hand, that an ever increasing specialism has disrupted all human relationship between physician and patient. The affected organ alone has been treated, no heed paid to the sufferer as a whole, and the psyche forgotten. Intuition, all art has been sacrificed in pursuit of a phantom, the notion that medicine is a rationalistic natural science. Arduously a scientific superstructure has been built which is imposing, but ill fitted to house a living art of physic. Sydenham revolted against the medicine of Vesalius and Harvey. Now there are those who find the solidist, localistic, cellular pathology of Virchow inadequate to the needs of a rapidly developing humoral and totalistic nosology. The modern world is dynamic, and refuses to fit into the materialistic forms of yesteryear. Medicine must declare its emancipation from science, and establish its independence as a realm with its own laws and formulas for action. There must be a return to true ideals, a return to Hippocrates. Like a beacon stands out this monumental figure of the true physician, ever beckoning over the ages and pointing out the veritable destiny of medicine. We must be physician, not scientist; *Arzt* not *Mediziner*!²

Such is the tenor of the thought of some of the greatest figures in modern German medicine, and this cry re-echoes throughout the clinical world. But these criticisms, these exhortations, have not gone unchallenged even in Germany. There are those still true to the thinking and methods of the near past, true to viewpoints and means which built the greatest structure medicine has ever known. They would not see this structure torn down nor sacrificed to the flames of a reckless holocaust fanned by the enthusiasms of the moment. Scientific medicine has withstood such onslaught before. It always has had its critics. It was not these disgruntled individuals, however, who built the edifice of modern medicine. The craze will pass and ultimately sober and realistic reflection have its due.

Does this state of affairs warrant the designa-

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tion of *crisis*? Crisis is a strong term. Physicians use it to express the sudden turn for better or for worse in the course of disease. It denotes developments bringing anxious moments with the future in balance. Two concepts are imminent in the word, that of suddenness and that of danger. It may be questioned whether under these criteria the term can be rightly applied to the present state in medicine. Contemporary medical affairs have in them little that can be rightly considered catastrophic, eminently dangerous, or unusually sudden. Restlessness and uncertainty there are, but otherwise the new trend can be characterized as one of readoption of old viewpoints, old doctrines, old goals. The movement, if it leads to permanent change, will be one of gradual transformation. Yet I am hesitant in discarding a word so widely used. Unquestionably the term tends to focus and bring to the center of attention in all their sharpness the cross currents of present medical thought. Use creates meanings, and I shall let the term stand. Medicine has had crises at recurring intervals in this sense. The ways over which goals are now sought lead far back for their beginnings. There is no break with the past but the reassumption of neglected directions and the further treading of previously opened paths.

CYCLES IN MEDICAL THOUGHT

The history of thought, general as well as medical, falls naturally into periods. Discarded world-views have a way of recurring. Human culture proceeds by leaps and bounds only to end in periods of stagnation. There seems to be a sort of cyclic dualism pervading all things. We are, in a sense, creatures of our age, and it is difficult not to succumb to the spirit of the times. But we can be, consciously, as well as unconsciously, a child of our period, and have an awareness of our place in the great onward march of history.

The concept of *spirit of the times* is a convenient one, though subject, no doubt, to considerable criticism. Periods like individuals have lineaments which characterize them. There seems to be a common spirit which pervades an age. There are modes in thinking and in acting just as there are fashions in everything. These are contagious and spread widely. This does not mean that all thinkers of any one era subscribe to a single viewpoint or are led by similar ideals. Representatives of the most divergent thought exist side by side in almost every age, but some one particular way of looking at things seems to be in the ascendancy and commands the following of the majority. It is this predominant world view,³ *Weltanschauung*, which characterizes the period and constitutes the "spirit of the times."

The whole problem of fluctuation in systems of human thought, in scientific discoveries, in art, in human institutions, etc., has been most penetrat-

ingly and exhaustively studied by Sorokin⁴ in his great work, *Social and Cultural Dynamics*, just published. Sorokin divides cultures into ideational, sensate, and idealistic types. We are living at the end of a sensate day, several centuries long, characterized by many attributes among which is great advancement of science. Medicine apparently flourishes only in sensate soil, but as yet to my knowledge no detailed study formulating the dynamics of medical development has appeared. Sorokin's masterpiece furnishes the ground-work for such a specialized endeavor. Until such investigation is made all statements concerning the future of medicine should be very circumspect.

Medical men always have been and presumably always will be divided into opposing groups. The dichotomy existing even in Ancient Greece is illustrated by the tenets of the schools of Cnidus and of Cos. The Coans objected to the unnecessary multiplication of diseases, preferring to assign new syndromes to proper places under previously recognized pathologic processes. For the Cnidians every new symptom and every complication constituted a new disease. On the one hand was a school averse to a too subtle and hair-splitting symptomatology; on the other, one interested in the meticulous separation of disease processes and the formation of new clinical entities. One pursued a somewhat synthetic, the other a more analytic course.

So it has been down through the ages. First one tendency has been predominant, then the other. Analytic doctrine, the technical-morphologic viewpoint, returns when medicine is led astray by excessive and unwarranted indulgence in metaphysical speculation; synthetic doctrine, the cosmic-vitalistic viewpoint, when academic programs become inflexible and incompatible with the practical needs of medical life.

Just as it is frequent to characterize the *Zeitgeist* of particular historical periods on the basis of a two-fold division, so it is advantageous to classify men into opposing types. This procedure, of course, is artificial, and fits the facts in a crude way only. All the criticism of the *type* concept in general applies. The stamp of a period in medicine is given to it by its great men. As men differ, so do medical eras differ. Hippocrates and Sydenham, Harvey and Virchow are names to conjure with, names consonant with their times, nevertheless names synonymous with opposing types. *Arzt* and *Mediziner*, clinician and researcher—call them what you may—represent the schism between medical artist and medical scientist, between practitioners of the *art* of medicine and investigators in the *science* of man and disease. Yet not all those of synthetic mind are found

⁴ Sorokin, Pitirim A. *Social and Cultural Dynamics*. Vol. I: Fluctuation of Forms of Art; Vol. II: Fluctuation of Systems of Truth, Ethics, and Law; Vol. III: Fluctuation of Social Relationships, War, and Revolution; Vol. IV: Basic Problems, Principles, and Methods (not yet published). American Book Co., 1937.

³ Smuts, J. C. The scientific world picture of today. *Science* 74: 297-305, September 25, 1931.

among the practitioners, nor all those of analytic intellect among the scientists. The art and the science of medicine are coexistent at all times, even if first one and then the other be over-emphasized and give cause for revolt. Today medical science is regnant and it is the physician who rebels, demanding return to the ways of the Fathers of Physic.

THE REVOLT AGAINST ACADEMIC MEDICINE

The tenets, concepts, and teachings of present-day academic medicine require no special delineation, for most of us either live in or were brought up in its atmosphere. This medicine is the direct descendant and continuation of the medicine of the latter half of the nineteenth century. Its lineaments are amply illuminated by the glare of the spotlight thrown on it by its critics.

That there are deficiencies in scientific medicine as now taught when viewed from the standpoint of medical practice seems above question. The great acclaim with which the work of the Danzig surgeon, Erwin Liek,⁵ was received is sufficient evidence of this. Regardless of the fact that this work is open to serious criticism and contributes little that is new to medical thought, nevertheless, the verve and feeling with which it is written and the responsive chord which it struck in the hearts of numberless medical practitioners should give reason to pause and ponder. Bier, and Sauerbruch, surgeons of international reputation, have championed views not consonant with reigning medical thought. However, the most clear cut presentation of the revolt against academic medicine is that of the Viennese, Aschner.⁶

The newer medical thinking is directed toward three different aspects of medical doctrine and methodology. First, there is the trend toward the formation of a revised medical logic restricting the fields of induction and deduction and enlarging the scope of intuition and fictional thinking. This logic is being oriented more toward the needs of practical medicine than, as in the past, to the advancement of knowledge by medical research. Secondly, there is the discussion in the ethical, social, and economic fields, with which I am not concerned at present. Lastly, there is the movement away from academic medicine with the endeavor to reintroduce many old principles into medical practice. Let us examine a little more in detail the thought of these critics.

Until a decade or so ago both physicians and the public were satisfied that medicine as presented by the universities represented the best possible system, but the evidence is becoming ever greater that scientific medicine must change its direction and undergo modification if it is not to

come into ever greater conflict with reality and the needs of medical practice. This lack of agreement between theory and practice is the ultimate and logical outcome of the solidarist, localistic, cellular and organ pathology of Virchow. There has been always deep seated difference between scientific academic medicine and the various outsiders, represented by different sects. There has been a tendency to dump all outsiders into one grouping as opponents of medical science, even though this grouping contain such heterogenous members as outright quacks, irregular practitioners, cultists, and so-called renegade members of the medical profession itself. To find now that certain members of the regular profession seem to admit that this outside approach to medicine has some merits, maintaining that its mere existence testifies to the fact that it fulfils a human need, is somewhat disturbing. The renaissance of homeopathy in Germany and its welcoming by some of the members of the new school is mute evidence of the discontent and dissatisfaction with things as they are.

For a time it seemed as if the cellular theory of Virchow had established a firm fundament for all future medical development. But gradually it became evident that the findings of pathologic anatomy which were made the bases for diagnosis and therapy did not represent the essence of disease, but rather intermediary or end products of disease processes, and as such could not give reliable indications for therapeutic endeavor. Characteristic anatomic findings are not even present in the so-called functional or subjective disease conditions, which with a purely anatomic approach receive very inadequate attention. The idea that tissue changes are often irreparable inevitably leads and has led to therapeutic nihilism and a general pessimistic medical attitude entirely unwarranted. In the pursuit of the task of making medicine an exact science, and of explaining all life processes, both normal and pathologic, in terms of physical and chemical laws, the effort was made also to ground therapy in science. All that did not transpire in accordance with or fit in with these laws was neglected, completely ignored or, even worse, considered non-existent. But gradually the recognition has come that we have touched only the surface of life by our laboratory methods of experiment and quantitative determination. Life itself is still unexplained and has its own laws. The analytic, mechanistic, materialistic approach, besides the metaphysics it contains, still leaves always a nucleus of vitalism. Especially in therapy, medical tact, well tried empiricism, synthesis, and intuition must be added to experimental rationalism. Science, empiricism, and art are contiguous realms and all deserving of maximum use. The concept of the localization or seat of disease, though helpful, is and has been a great stumbling block. Nowadays Virchow's dictum that there are no general diseases, but only diseased conditions of cells and organs, is

⁵ Liek, E.: *Der Arzt und seine Sendung*. Ninth edition, pp. 254 Lehmann.

⁶ Aschner, Bernhard. *Die Krise der Medizin. Konstitutionstherapie als Ausweg*. Pp. 562. Hippokrates, 1928.

Konstitutionstherapie als Ausweg aus der gegenwärtigen Krise der Medizin. Hippokrates 1: 41-59, May, 1928.

obviously inaccurate and inadequate. The doctrines of internal secretion, of immunity, and of constitutional pathology have led us to see that there are large numbers of generalized pathic states. In the therapy of such conditions, scientific medicine is often at a loss, whereas unofficial medicine has means, long tested empirically, of accomplishing results. This is one reason why the thinking public is becoming distrustful of the mosaic-like type of thinking of modern medical specialism with its local diagnoses which neglect the general connectedness of things.

Medicine today is seeking a way out of these difficulties. The solution lies in the abandonment of the one-sidedness of the Virchowian system, and the reassumption of many empirically tried methods of the past wrongfully discarded on the basis of doctrinal reasons. In fact, the broadest basis for reform lies in the welding of modern medicine on the broken centuries-old Hippocratic-Galenic-Paracelsian tradition. In spite of our salvarsan, our insulin, etc., we have not progressed markedly over these great men of medicine in the healing of disease, when we leave out of consideration the accomplishments of modern surgery and the combating of infectious diseases. These great men thought in terms of a humoral pathology, and such a pathology must be granted its rightful place alongside cellular pathology in the framework of modern medicine. We need a composite medicine based on no one system. Science and empiricism, technique and art, analysis and synthesis, induction and deduction, the assembling of facts and intuition must all take their place in the building of the future edifice of medicine. For the accomplishment of this there must come a change in the whole system of medicine, a swinging of the pendulum in therapy from solidarist, localistic, organ and cellular pathology toward general, humoral, and constitutional nosology.

In medical education many of the younger physicians, who are more in tune with the present-day antimaterialistic trends of general thought, find it increasingly painful that in many clinics tedious and time consuming animal and laboratory experiments, often on unessential questions of detail, are carried out, whereas essential portions of medical practice, especially therapy (with the exception of the operative specialties), are grossly neglected. If these young men take up an academic career, they find, however, that their opportunities for advancement lie largely in the grooves followed by their predecessors.

Thus runs the indictment of Aschner, and with him of many others, against the academic and official medicine of our day. Though he speaks of a new renaissance and looks to a new medical synthesis, nevertheless he faces toward the past. Others call also for a return to Hippocrates. Arturo Castiglioni,⁷ the medical historian of

Padua, sees in all this medical unrest a Neo-Hippocratism, and devotes a whole tract to the subject. We find the youthful president of the University of Chicago admonishing the august American College of Surgeons to return to the Sage of Pergamon. In so far as Galen represented the summing up of an era in medicine, namely the Greek, in so far as he sought to bring together the discordant threads of the medicine of the whole ancient world into a grand synthesis,—he stands as a type needed in the modern world so replete with facts and poor in principles. Galen had many thoughts and conceptions which are distinctly modern. And yet it is not to these that Hutchins⁸ has reference. He stresses Galen's viewing of the organism as a whole; the fact that today as in Galen's time we have our Methodists, "who treat the label instead of the patient," and our Atomists, "who believe that mere collection of minute facts about parts will in some mysterious way add up to a solution of the problems of the whole"; the necessity of regaining the Galenic balance of speculation, observation, and experiment, and finally the desirability of the resumption of that mode of analysis suppressed for two hundred years which concerns the correlation of the sciences which lie at the basis of the medical arts. Hutchins shows astonishing insight into the needs of medicine today, and his rational abstract content of medicine, the analysis of fundamental concepts, and the correlation of medical disciplines is the brief of recent medical philosophy.

Defending scientific medicine is Paul Gerber.⁹ Fundamentally, he says, it is the complexity of the individual object of medical research and study which lies at the bottom of the present uncertainty. No matter how thoroughly this object is approached inductively, still it refuses to be completely grasped. It is this difficulty, not limited to our time, which has led to the use of the science of heredity in medicine and to research in the field of constitution. These disciplines, resting initially in large part on empiricism, fulfilled not only the need for explanations of the great variability both in form and function under normal as well as pathologic circumstances, but also brought the individual, the personality to the center of attention, not alone in a purely biologic, but also in a social sense with especial emphasis on the psyche. The outcry against academic medicine, the medicine of the schools, is no accident. Such authors draw much of their argument from historical sources at a time when school and actual life were really strange to one another. Modern scientific medicine has not neglected humoral pathology. The revival of the controversy between humoral and solidist viewpoints is un-

⁸ Hutchins, Robert Maynard. Back to Galen. *Surg., Gynec. and Obst.* 58:420-422, Feb. (No. 2A), 1934.

⁹ Gerber, Paul. Konstitutionstherapie und andere Revisionstendenzen in der modernen Medizin. *Hippokrates* 3:103-117, May, 1930. Bemerkungen von Honigmann *Ibid.* 118.

⁷ Castiglioni, Arturo. The neo-Hippocratic tendency of contemporary medical thought. *M. Life* 41:115-146, March, 1934.

fortunate and outmoded. Cellular and organ pathology rests on the fact that the cell is the primal element in plant and animal life, as amply shown in embryologic development and by experimental physiology and pathology. The body fluids are secondary, but humoral pathology has its justification in the rôle these fluids play in nutrition, metabolism and energy exchange. Pathology is neither cellular nor relational, neither solidist nor humoral, but all these. Most remedies are introduced into the humoral milieu, and it is here, likewise, that many noxa are sought. Dogmatism in reference to the value of experience is as much a hindrance to the advancement of medicine as dogmatism in medical theory, and those who speak of the *Moloch of Science* sin no less against the true spirit of medicine than do the doctrinaires occupying stools in the universities. One should speak not of crisis in medicine, if one must so misuse the word, but of crisis in the logic of medical criticism, so uncritical is much of the current condemnation of medicine. Most of that which is true and well taken in these criticisms is not new, and that which is new, is in the greater part false.

CONCLUSION

I have presented all this controversy and discussion in order to portray the unrest of the present day and to make the need of medicine adequately felt. What above all else can contribute to bring us out of this morass of conflicting opinions and continuing polemics? What alone can weld together the great trends of the present day and adequately weave them in with the currents of the past to present a unified whole? The cry is back to antiquity! As if this could save us, or satisfy a medicine that has accomplished so much! Never in the history of the intellectual crises of man has a simple return to previous life forms solved the crying need. The "Back to Hippocrates" of the physicians, the Aristotelianism of the vitalistic biologists, the Euclidianism of the mathematical intuitionists are only symptoms that something is not in order in our intellectual housekeeping. Let us face forward, and not backward. Let us accept the findings and the thoughts of the new world if they stand the search-light of common reason and, binding and interweaving them with all that from out the past which has withstood the white crucible of the searching criticism of our time, build a new medical synthetic structure. This, though imperfect and marred by defects, nevertheless will hold out a hope of a haven for those now assailed by grave doubts. In short, we need today, as not for generations, a medical philosophy.

ABSTRACTS

THE TRAINING OF THE STUDENT IN WHAT IS INVOLVED IN ADEQUATE MEDICAL CARE

A. A. BAILEY and H. G. WEISKOTTEN, Syracuse, N. Y. (*Journal A. M. A.*, Dec. 25, 1937), describe a procedure

which has been in use at Syracuse University since 1930 in the hope that it would give the students a better point of view toward all the problems involved in adequate medical care. The program has involved the placing of responsibility on each student for a complete study of at least one patient who has been assigned to him as a clinical clerk on the hospital wards. At the beginning, the home visits connected with these studies were supervised by the hospital social worker. However, such supervision tended to routinize the work of the student and failed to develop initiative and the coordination that was essential to a satisfactory point of view toward the case as a whole. After several years of experimenting, the program has developed until it is now conducted as follows: Each clinical clerk is assigned a patient for investigation. The patient selected is one whom he has studied in the hospital from the clinical point of view. An effort is made to avoid cases in which the diagnosis is doubtful and to select those cases which present individual and environmental problems. The instructor may be aided by the social worker in the selection of the cases, but the student does not consult the social worker before making his study of the case. The instructor explains to the clinical clerks the significance of the investigations and outlines to them a general plan of procedure. The student then visits the patient's home, interviews the family, surveys the situation in general and drafts a rough report, giving the results of his investigations. The instructor reviews this report with the student and then goes with him to the home and familiarizes himself with the situation. He then discusses with the student the problems presented and, if necessary, makes suggestions for further investigation. On the completion of his study, the student prepares a report which includes a series of recommendations with regard to the adequate handling of all aspects of the case. He presents this report at one of the medical seminars, which are held weekly throughout the year. After the student has presented his report, the social workers are asked to comment on the case and to give any additional information they may have. Each faculty member then discusses the situation from his own particular point of view and questions the student with regard to various aspects of the case. The attending students participate in the discussion. The student is expected to follow his patient throughout the year and to file a supplementary report giving the final status of the patient at the end of the year. Usually two reports are presented at each seminar meeting and the schedule is so arranged that each student attends four seminars and thus hears the presentation and discussion of seven cases other than his own.

ECONOMY IN MEDICATION

By economy in medication BERNARD FANTUS, Chicago (*Journal A. M. A.*, March 19, 1938), does not mean the use of inferior remedies, for the first principle of economy in prescribing is that the most efficient remedy is likely to be the cheapest. The second principle in the economy of medication should be: Among drugs of equal efficiency, choose the least expensive. What this might mean in the case of hypnotics and analgesics is illustrated by tables. Two of the three most efficient hypnotics, namely, chloral hydrate and barbital, are also the cheapest. In such large institutions as the Cook County Hospital, the saving resulting from cooperation between the prescribing physician and the dispensing pharmacist might easily run into huge sums. Even in private practice it pays to economize in medication. Some physicians are nothing less than spendthrifts and wasters when it comes to prescribing. Economics can be practiced in the preparation of hypnotics, analgesics, disinfectants, placebos and in the drug room. These are discussed separately.

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APRIL, 1938

Editorials

WHAT ABOUT DIPHTHERIA?

We are pleased to observe for 1937 by far the lowest diphtheria rates on record: 55 deaths in Indiana, as compared to the lowest previous year, 1936, with 101. That is a far cry from days of yore and it may appear as if diphtheria is really down for the count. Such, however, is by no means correct, we may be very sure. January 1938, for example, had 10 deaths (February returns are not yet in). A sharp upturn probably will occur this year. Much as we regret to say it, this is probably to be expected. This disease fluctuates through a cycle of about six years and 1937 happened to be right in the trough. We shall do mighty well indeed if we hold the next two or three years under 100 deaths each.

The accompanying graph shows that the general course of this disease has been downward since the turn of the century—a significant date because it showed the coming of reliable statistics in Indiana and the beginning of the time when scientific research was beginning to exert an effect. It will be observed that the recurring waves are regularly lower as also are the troughs in the graph.

Evidently our method of attack on the disease is in general effective. What can be done to prevent the levelling off which is so evident (except for the year 1937)? Apparently we should do more of the same thing that we have been doing. A few years ago it was claimed that it was necessary to immunize only one-third to one-half of the children in order to prevent the spread of the disease. This is definitely in error; it is imperative to immunize *all* of them. An immunized child does not "break the chain" in a potential or actual epidemic for the reason that such a child having

only an antitoxic immunity can still be a carrier and often is a carrier of the virulent germs. He himself is immune to the effects of the disease but not to the presence of the germs in his throat. This doubtless is the reason why there are found to be a surprisingly large number of carriers in the population even when there is little clinical disease. One wonders if it would not be well to have a bacterial vaccine made against the germ, with the hope of immunizing the child against the germ itself. A mixture of such a vaccine made for diphtheria bacilli and the usual toxoid has been used in France with good results, it is claimed. In the meantime, it will be necessary to continue the immunization program without slacking. In this connection it is now known to be definitely better to use two injections of toxoid rather than only one. Some authorities are recommending the usual injection of "alum toxoid" followed after several weeks with one of the straight toxoid (such as was used until four or five years ago). This procedure is sound on theoretical grounds.

Recently it has been claimed that there are a good many cases of the "gravis" type showing up. Much has been said about the "gravis" type of the diphtheria producing a toxin which is not neutralized by the antitoxins which are available. Such results have been definitely observed in Europe, but we believe there is no evidence that such incorrigible strains of the organism have established themselves in Indiana. It is likely that we are dealing only with our ancient enemy who incidentally still has plenty of punch. The methods used so successfully in the past are still effective. We shall enumerate them:

1. Immunization of all children above 6 months of age. Particular attention should be given to the pre-school children and runabouts.
2. Investigation of every case of croup which does not promptly respond.
3. A sharp lookout for cases during the months immediately following the opening of school.
4. In the presence of an epidemic, the schools should be kept open and daily inspection of all children and teachers should be made.
5. Prompt laboratory cultures taken on all suspected cases and supposed contacts or carriers.
6. Isolation of all persons with positive throats.
7. The reporting of all cases to the health officer.
8. Prompt administration of large doses of antitoxin as soon as the clinical diagnosis is made. This is to be repeated as needed. (Do not wait on laboratory report to get a cure.)
9. Direct smears by the clinician should be made oftener because they require much less time and they give the clinician an idea of the other germs present (secondary infection).
10. The fact that the heart is liable to injury from diphtheria toxin should remind the physician to keep the patient very quiet for two or more weeks after he is apparently well.

11. Patients should not be released until two (or better three) consecutive negatives have been obtained on throat culture.

12. Intubation facilities should be available to every community.

All other useful devices, empiric and scientific, will, of course, be used as indicated. It is clearly possible to eradicate diphtheria in Indiana but it will take the combined efforts of professional and lay groups.

STATE OF HEALTH IN INDIANA

It was only a few years ago that John A. Kingsbury, ardent promoter of socialized medicine and late executive secretary of the Milbank Foundation, gave public utterance to a gross misstatement of fact when he said that Indiana had abandoned her State Board of Health. At that time we predicted that the new set-up would prove to be a change for the better. The reorganization of the Board has long since been accomplished and competent Dr. Verne Harvey is at its head, surrounded by a capable group of know-hows and go-getters. Indiana citizens are in quite good health, thank you!

A survey published in the *Bulletin* of the Indiana State Board of Health for February carries an interesting and informative tale under the caption, "A Pleasant Surprise in Statistics." This article has to do with a recapitulation of state health matters for 1937, the figures therein showing an upward trend in the control of most of the diseases heretofore occasioning greatest public interest. For the past few years each succeeding report has shown an improvement over its predecessor. In the matter of birth rate, there has been a decided increase to 16 per 1,000 of population, the highest since 1932. The depression, of course, enters into this figure else we might have expected the rate to go over 20. The death rate has dropped to a new low in recent years: 11.7 per 1,000.

It is in the recording of the preventable diseases that we are at present most interested, and it is in this field that we find a highly satisfactory report. Tuberculosis, long-time enemy of health officials and physicians, claimed a death rate for 1937 of 47.5 per 100,000, the lowest in the history of the State of Indiana, and a very complimentary figure in any state table.

Typhoid, only a few years ago a veritable scourge in certain sections of Indiana, caused but 41 deaths in 1937, and this in spite of the fact that 1937 was a flood year when sanitary conditions were gravely upset in the southern third of the state. In 1927, only ten years ago, 360 Indiana citizens died from typhoid fever.

The results of the campaign against diphtheria are told. The death rate from this disease has reached an all-time low of 55 for the entire year. It is not hard to recall the time when this figure reached many hundreds.

Scarlet fever caused 106 deaths, which is not such an improvement, but it must be remembered that the campaign against this disease has not been so widely waged as against diphtheria. Measles and whooping cough, too often considered as harmless diseases, showed 15 and 160 deaths respectively.

Pneumonia continued to be a death factor of great importance, since nearly 3,000 of our citizenry died from this cause last year. Cancer came in for a total of 3,860, a lower number than in former years. Heart disease claimed a total of almost 9,000 victims during the year.

From these figures it will be noted that the preventable diseases are fast coming under control though there is, of course, much work to be done in the future.

One of the smartest moves of the present health board, to our notion, is the proposed clean-up of the restaurants and other food-purveying establishments in the state. With the advent of the pleasure car, "eat shops" of various sorts have sprung up in every city, town, and hamlet, and it seems that every cross-roads corner has at least a hamburger stand. Many of these places, by reason of extreme cleanliness and careful selection of food, have established businesses of no small proportion and, naturally, they are imitated. It must be admitted that a considerable proportion of our eating places will stand a great deal of cleaning up, and it is to this end that the Board of Health is directing well placed efforts. We know of no recent proposal on the part of the Board that has met with such a hearty reception as this, and efforts in this direction will be watched by Indiana citizens with much interest.

Indeed, Indiana has a Health Department, and one that compares most favorably with that of any of our sister states! Competently managed and with sufficient funds at its command to carry out its projects, our Indiana State Board of Health affords us a pleasant outlook upon the future health of Indiana.

ATTENDANCE AT SOCIETY MEETINGS

There came to headquarters the other day a letter from the secretary of a county society in central Indiana commenting upon the sparse attendance at one of their regular meetings. It seems that the guest speaker had driven some 120 miles from his home, only to be greeted with a total attendance of four physicians. The subject discussed happens to have been one of importance to every physician in that county and, in addition, there was shown a picture that graphically describes a condition not uncommonly found in the new born.

The secretary writes, in part: "It hardly seems fair! Ask a doctor to drive 120 miles to talk to four doctors. It sure makes me feel badly about

the matter; I could be seeing patients at my office, too, but I tell them that I will not be able to see them that night, as I am going to my county society medical meeting, and I go, while other doctors will sit in their offices. We have good programs and the members should attend."

This letter came from a county whose society membership is sixteen. Most of these men are of the younger group, men who should be on the alert to pick up all available medical knowledge.

It so happens that we are familiar with the topography of that county; we know distances and road conditions. True it is that this particular meeting was held off in one corner of the county, in a small town, but the fact remains that here was an exceptionally good program and some fifteen miles would cover the longest distance traveled. Road conditions are exceptional in that county and our memory is that weather conditions on this meeting night were such as not to deter one from driving.

Analyzing the problem, one finds many reasons why attendance at our county meetings is not what it should be. First, and unfortunately for them, there are those few doctors who seldom attend medical meetings but with this small group we are not concerned in the present picture. The matter of meeting publicity is an important one. Usually, the mere mention that a meeting is to be held on a certain date and the announcement that John Doe is to be the guest speaker means but little to the average man, unless he happens to know John Doe. In preparing the meeting notice, it is well for the secretary to tell something of the speaker and of his subject. If films are to be shown, something may be said about the picture.

It is highly important that all meeting notices should be sent out well in advance, so that members may have an opportunity to so arrange their work that they can absent themselves from their office. We recall one meeting in our society that because of a combination of circumstances was announced but two days in advance. Notwithstanding the fact that this meeting was one of the annual "specials" and also that we had a long list of speakers of national reputation, plus a good dinner, our attendance was less than fifty per cent of what it would have been had our members had proper notice.

The use of the telephone should not be overlooked; many doctors seem to like personal invitations to attend meetings. We have tried this on several occasions, when we felt we had an unusually good program to offer. Even in the counties of smaller population doctors frequently meet one another and these meetings will afford opportunity to mention a coming medical meeting. Numerous other plans will suggest themselves to an alert secretary, as well as to the other county society officers.

It is of the guest speaker that we are thinking in the present instance. He makes preparation

for his address and arranges to be present, regardless of weather conditions. As he drives to the meeting place he is thinking over what he will say. Then he is introduced and faces a group of *two* doctors—presuming that the president and the secretary are sitting up front! It is easy to imagine his train of thought as he begins his address. It frequently has been our observation that when a speaker is perturbed he becomes less interesting. This recently was borne out when we had as our guest speaker a man of international reputation, a man who commonly says things in a manner such as to keep his hearers ever on the qui vive. On this occasion, however, he found it necessary to "pull his punches," as he later expressed it, because a group of lay persons somehow or other crashed the meeting.

These are a few of the suggestions we have to offer to the bewildered secretary. He has a problem on his hands, it would seem. If we were to offer one more suggestion it would be to write a stinging letter to each member of his society, telling what *he* thinks of it and putting it squarely up to them: "Do you want guest speakers at our meeting? If so, will you support such programs by your presence at the meetings?"

WHAT PRICE BEAUTY?

Physicians generally are aware of the dangers attendant upon the indiscriminate use of cosmetics and of the fact that Federal regulations as to the component elements of these mysterious compounds approach the negligible; that much inconvenience, even positive danger accompanies the use of some of these preparations is commonly known to our profession. The number of such highly-advertised products that have had their day and then been withdrawn from the market, solely because the consumer has found them to be dangerous, is a long and growing one. Suits against such manufacturers as well as the retailers handling them are not uncommon. Not so long ago an Indiana merchant was on the losing end of a judgment for \$15,000 awarded a resident of the state who had suffered serious visual impairment incident to the use of a depilatory. The manufacturer of this product immediately retired from business and it is probable that some insurance company was called upon to pay the judgment. Only a few weeks ago there appeared in medical literature the story of a definite allergic condition following the use of a rather new and highly advertised shampoo put out by a very reputable manufacturing concern; some sixteen such cases were reported in the practise of this one physician. A year or so ago a certain "hair tonic" that enjoyed a wide distribution and sale due to a clever advertising program was found to be the cause of scalp sores that were, to say the least, very uncomfortable.

The writer was numbered among the numerous victims and vividly recalls the unpleasant condition that required many weeks to clear up.

In the matter of face powders we find another frequent cause of pathology. Numerous people find that their skin reacts unfavorably to the use of rice powder, while others simply cannot use a powder with an orris root base. Then, too, we find cases in which the use of certain powders results in a marked conjunctivitis. We have had several such patients in whom the symptoms immediately subsided upon changing the powder used. Dermatologists tell us that cosmetics indiscriminately used bring numerous patients to them. Some skin specialists declare that they have no little trouble in convincing their patients that the use of certain cosmetics is responsible for their condition.

The beautification of the eyebrows and eyelashes of the gentler sex furnishes a market of no mean proportions for the manufacturers of preparations believed by some to add to their attractiveness. In the use of many of such preparations there is produced an inflammatory condition of the eyes that is directly traceable to the alleged cosmetic.

Numerous other citations might be made, as showing the discomfort not to say danger arising from the use of many of these highly salable articles, but the examples quoted will suffice to prove our case, that there is need for Federal regulation as to the manufacture and sale of these articles. One has but to listen to a few of the radio "plugs" in order to be convinced that the recommendations thereby made are pretty far-fetched, to say the least.

If milady persists in her attempts to improve upon Nature, then she has the right to be assured that the products used are of such composition that they will not be a source of danger. If the Congress is to do anything to bolster up the Food and Drugs Act it might be well for them to look with an inquiring eye into the cosmetics group for in our opinion there is a fertile field for Federal legislative action therein.

Editorial Notes

Once more: Do not buy your way into so-called directories that are supposed to be used by insurance companies or other companies that may have work to refer to physicians. It is a waste of money. If you are tempted, write to headquarters first, and get the "low down" on the publication that you plan to patronize.

Morris Fishbein, purveyor of succinct statements that are entitled to be known as epigrams, in an address recently made before the Medical Society

of the County of New York, said, "What is needed to answer the problem of medical care for the American people is not a Plan, but Scientific Planning." We find a whale of a lot of common sense in that brief statement.

Medical men will be interested to learn that the "Man and His Health" exhibit at the World's Fair, to be held in New York in 1939, will be under the direction of the medical profession and that commercial drug firms will have no part in it. It promises to be the most illuminating exhibit on matters pertaining to public health ever portrayed in such enterprises and our information is to the effect that there will be no advertising features connected therewith.

Only two months remain to plan that trip to the convention of the American Medical Association in San Francisco next June, and the wise man is he who starts for the West Coast with a hotel reservation awaiting him. If you plan to go and have not yet made that reservation, better write or wire Fred Warnshuis, 450 Sutter Street, San Francisco, and tell him of your wants. Fred holds all hotel reservations in that city and they must be made through his office.

At the Secretaries Conference in Chicago the head of one of the better known medical schools of the South became interested in a discussion of THE JOURNAL program for the current year. His interest was such that he remained to ask a lot of questions as to what we were doing and what we are planning to do. He was shown recent copies of THE JOURNAL, carefully looked them over and declared that he was amazed, that he did not know such things were going on in any state and requested that he be placed on our mailing list, which was done with celerity.

Referring to Dr. Cronin's book, *The Citadel*, a member of one of our county medical societies suggested that every young physician be required to read it before entering practice. From another quarter we learn that another physician suggested that each young physician, before being admitted to membership in the local county medical society be required to pass a creditable examination on the contents of this book. Surely such recommendations as these add to the fulsome praise that has come to Dr. Cronin for one of the best books in recent years.

We again remind those planning to attend the San Francisco meeting of the American Medical Association, in June, that it is very necessary to make hotel reservations in advance. It will be but a waste of time to contact the hotels directly as all reservations *must* be made through the hotel committee. We would suggest that a wire be sent, rather than a letter, since advices are to the effect that hotel accommodations are becoming limited. Address Dr. Fred C. Warnshuis, 450 Sutter Street, San Francisco, who is chairman of the committee, and your message will receive immediate consideration.

Comment reaching our desk indicates that the president's program of special subjects for discussion in *THE JOURNAL* each month is meeting with much favor. A letter from a member states "the last number of *THE JOURNAL* is a peach," referring to the issue devoted to the subject of pneumonia. We also are of the opinion that the newly adopted plan of having articles on various economic subjects from lay persons is being well received. Mr. Bomberger's discussion of state medicine, in the March number, created much interest among students of this subject. In this number we present some views on banking, a subject of interest to most physicians. Your comments on these innovations in our magazine will be appreciated.

After twenty-two years of service as editor of the *West Virginia Medical Journal*, Dr. James R. Bloss has retired from that position and has been made editor emeritus. During those years Dr. Bloss has made an enviable reputation as an editor of pronounced ability and one who has the happy faculty of expressing himself so that there is no doubt about his meaning. His journal came to us as a clean, well-printed magazine, one upon which we always could depend for a half hour or more of profitable reading. *THE JOURNAL* extends to him most cordial good wishes for the future and dares to express the hope that occasionally he will take his pen in hand to assist in guiding the future destinies of the profession of which he long has been an important part.

Your attention is called to the short article on page 166 entitled "Sullivan County Routs Diphtheria." This program of preventive medicine sponsored by the county medical society is proof to the citizens of that community that there is no need for socialized medicine, for the members of the Sullivan County Medical Society are actively interested in preventive medicine. All of the society's members participated in the program, and services were given by the physicians without cost to the patient or to the school. The program was the con-

tribution of the Sullivan County Medical Society as a free service to improve the general public health of the children of the county. Other Indiana counties probably have done as well as Sullivan County but if not, the plan carried out in that county provides a good pattern.

Every time we see a case of squint (more scientifically termed strabismus), we wonder how long some physicians will continue to advise parents to let the child alone, that he probably will outgrow it. *Children do not outgrow squint*, any more than they outgrow "running ears," and many other complications found in growing children. Squint has a definite etiology and the sooner the victim is referred to a competent oculist the better are the chances of correction without operation. Thirty to forty percent of these cases are corrected by the fitting of proper lenses and the figure is raised to well over fifty percent when proper muscle exercise is carried out. All such cases should be referred immediately when a squint is noticed since it is the experience of all oculists that delayed treatment means a delayed recovery and perhaps necessity for surgical interference.

The next sixty days will find most of our district societies holding their spring meetings, practically all of them having announced their schedules. These gatherings have come to be events of much importance in that they bridge the gap between the annual conventions of the State Association. Not only do they afford opportunity to meet with the physicians from adjoining counties but these gatherings supply a means of exchange of ideas, both medical and economic. Then, too, matters of State Association policy are often talked over informally at these meetings. Usually attended by one or more of the official family, they provide the opportunity to discuss these problems and give our officials an insight into the trend of thought in various sections of the state. By all means these meetings should be attended; the programs invariably are of a very high order and in a few hours is condensed much medical lore of merit.

Matters pertaining to business connected with *THE JOURNAL* have taken us to Indianapolis rather frequently of late and on these visits we have noted the evidences of general activity about headquarters. On every visit there we have contacted numerous of our officials and committee heads, each of whom had dropped in to discuss this or that pertaining to Association affairs. It is no wonder that the Indiana State Medical Association is such an up-and-at-'em organization, with such a live wire group managing its affairs. We do not know of one committee that is not hyper-active and by that we mean alert to what is going on and doing

all they can to see that it is properly done. The meat of the whole thing is the fact that many of our younger men are active on these committees—youngsters who, one of these days, will be taking the places of the oldsters. And when that day comes these young folks will be properly trained for their respective stations.

The February number of *Outdoor Indiana* gives conclusive proof that our State Conservation Department knows its way around in the matter of fish and game conservation. That good fishing is to be had in almost every section of Indiana is known to most Hoosier fishermen and it is they who credit the department for these angling conditions. Waters that for many years furnished but an occasional bass or a few bluegills now can be depended upon for a string that closely approaches the limit, weather and “moon” conditions being just right. Yes, we are an addict to the “dark of the moon” idea in fishing, over the years having made the observation that while fish are caught in the “light of the moon,” we do infinitely better the other half of the month. Fishing licenses for the current year will cost us a bit more than in former years, the fee having been raised to one dollar and fifty cents, but we consider this little license duty as one with which we comply with no objection whatever.

Representative Samuel B. Pettingill, member of Congress from the South Bend district, told members of the Chicago Dental Society at a recent meeting that “The drive for state medicine finds its chief motive power in the desire to shift the economic burden involved from the shirker to the worker.” According to press dispatches, Representative Pettingill also said that “The actual results of state medicine—even among the poorest class—do not warrant its extension beyond exceptional cases.” “We should be realistic enough to recognize two things: First, that the need for state medicine is more apparent than actual, and, second, that the results of practicing medicine at public expense by political bureaus, even among the very poor, is nothing to brag about.” “How can you distinguish state socialism in medicine from state socialism in any other vocation? The doctors may be more vulnerable politically, as not having a large bloc of voters to be used in their defense. But the principle is the same. And the principle is wrong.” It is unfortunate that Mr. Pettingill has decided to retire from his Congressional duties (some time ago he announced that he would not be a candidate for renomination to the office). Medicine needs such men in the Halls of Congress, men who have the courage to state their opinions in such a decided fashion.

With the occasional balmy days that blustery March brings to us, there comes the vacation urge. Call it what you will—there is a definite urge to *do something* about it. To some of us the urge is temporarily stilled by bringing down from the attic the old tackle box and looking over the reels and other fishing equipment. To others, the only respite lies in looking over 1938 road maps, charting thereon real or imaginary vacation trips. Again, some of us will be pointing our thoughts westward, with the San Francisco convention of the A.M.A. as an objective, while others are seemingly content with a three-day or perhaps a weeks’ stay in Indianapolis in October at State Association convention time. No matter what the trend of thought, every Hoosier physician should begin to be vacation-minded. This vacation thing is not a fetish, it is not a luxury; it is a vital necessity, and no group needs to consider it more seriously than our own folk. Forget the item of cost. Think of it only as an investment—a health investment, if you please. If you are in doubt as to the correctness of that theory, scan the obituary lists as published each week and count the number of deaths among the younger professional men. Note the predominance of heart disease as a cause of death. Read the many articles on the heart of the man of fifty; read that admirable group of articles about the man of fifty as published by Squibb and Sons—then, plan that vacation!

With the state-wide primaries in the near distance it behooves medical men to keep their weather eye open as to the candidates presenting themselves for public preferment. Especially is this true as regards candidates for our state legislature. Many of course will seek renomination and their records during past sessions should be carefully scrutinized. All county medical societies have been advised by the Association legislative committee as to what John Doe did at the last session in respect to proposed legislation concerning the medical profession. It is to be presumed that the perennial attempt to bring about changes in the medical practice act will be made, our information being that certain of the cultist groups will endeavor to establish a separate Board from their group. As we have said, we have the voting record of many candidates and those who voted for a breaking down of our medical law should be opposed by every Hoosier physician, regardless of party politics. We have been fortunate, in Indiana, in resisting such attempts over the years and must battle every such effort with all the resources at our command. Don’t vote for Tom, Dick or Harry, until you know exactly where they stand; if they are noncommittal in matters of medical legislation, put the black ball on them without hesitation. Do not let personal acquaintance influence you; your very own friends, once they get into legislative halls, may stab you in the back by voting for some measure intended

to harm your profession. We have every faith in our legislative committee. Two years ago they fought a valiant fight, and won—won in every round, at that. They deserve your full support and this support must be started right now, while the primary campaign is in full swing.

Among the speakers at the recent Northwest Regional Conference in Chicago was Mr. John Austin, executive secretary of the Sedgwick County (Kansas) Medical Society. Wichita, with a population of more than 100,000, is the county seat of this county. The remarks of the speaker set in motion a train of thought: here was a county society in a western state with a membership of less than 200 which found it most profitable to employ a full-time lay executive secretary. In passing, we may remark that from our observation of Mr. Austin, the society has made no mistake in selecting him as their executive secretary. A forceful, forthright speaker, Mr. Austin proceeded to tell his story to the several hundred physicians in the audience, making it clear that he knew his subject and believed in it. We thought of several of our larger county societies that well might emulate the example of Sedgwick County, Kansas, in the employment of such an official; at least four of our component societies would do well to make a study of the set-up in vogue in this western community. Speaking from an experience of many years as secretary of a large medical group, we know that no physician, no matter how imbued he may be with the ideals of organized medicine, can afford the time necessary for such an office. There is almost no limit to the work that a full-time executive could do. For example, we cite the experience of our State Association. In the matter of a decade, the Indiana State Medical Association has evolved from "just another medical society" into a live-wire organization which takes a high rating in any classification of medical groups. It is worth thinking about, and we know of one county society which already is giving this subject serious consideration. It is true that this arrangement smacks of the "business agent" type of thing, but in these days it is well to enter into this sort of thing. "The Lord helps them who help themselves," you know!

Rev. G. A. Frantz, of Indianapolis, in the services that he conducted for Dr. Edmund D. Clark, paid high tribute to the medical profession, and we quote a few of his remarks:

"It remains a mystery that suffering should have so large a place in our life. . . . But there is this fleck of light upon the dark mystery. We would never know the charity, the tireless compassion that the human soul can show if we did not suffer. We would not know minds and hands devoted to healing were there no sickness. We could not learn kindness, which is the mother-tongue of our race, ex-

cept pain taught us. We could not know how deeply we may trust a good man, did we not have God's servants, the doctors. Wherever God may place you (the doctors), however high or low, however hard you may have to work; whatever difficulties and discouragements you may have to encounter—and they do come—nothing can take from you the sheer greatness of your work. You are the standing army and navy of humanity. You defend us and rescue us from the domestic and the foreign enemy. You bring us into the world; you attend us upon our voyage through life; at any moment we may call upon you to put us into dry-dock, or more frequently assist us to carry out the most delicate undertaking—the execution of repairs while under steam. And when time comes for us to pass beyond the horizon of human life, we call upon you again, for the last time, to assuage our sufferings and soften the pangs of death. We depend upon you in all things. And we trust you implicitly. To your hands we commit the innocence of our children and the honor of our womanhood; and it is the special glory of your profession that we make these commitments without question and as the merest matter of course, because we know that they are safe in your hands."

Traveling homeward from Indianapolis, a few days ago, we noted here and there an unusual winter activity in certain woodlands and it dawned upon us that it was about time for the sap to run and that these activities presaged the opening of the sugar camps. Our memory took us back to the Wild Cat days, when we betook ourselves to the barn, got down the sugar buckets and saw to it that they were in good order, soaked them and tightened the hoops, then went afield in search of alders—known to us as elderberry bushes—for material with which to make the splies. This chore attended to the sugar camp was opened, the boiling pans cleansed, and a large supply of wood gathered from nearby deadwood and hauled to the camp, a one-horse sled used for the purpose. With the thaw, action about the farm became vigorous. A large hogshead was fastened to the sled and the trips through the sugar grove were routinely made, and the buckets were emptied of their sugar water which was taken to the boiling pans. Nor did we forget the sizable chunk of fat pork that was allowed to remain in the boiling pan until we "sugared off." That same piece of pork, much reduced in size, was a choice morsel, shared by all who were fortunate enough to be present at that ceremony. At the end of the season, the last boiling was continued until the syrup had sugared, resulting in that most delectable confection we know as maple sugar. Yes, those were the days, days that recur to us each spring, days never to be forgotten, red letter events back on the farm when there were too few such events. A recent advertisement of Vermont maple syrup made the claim that the product of that state was "tops" for

the nation. Perhaps, but to our mind Hoosier maple syrup is hard to beat; it stands at the top in our list, probably because we learned how to make it, down Wild Cat way.

The Journal of the Kansas Medical Society, for February, 1937, carries a reprint from the Kingman Journal of February 4th that tells its own story in a graphic manner, the story having to do with the fact that diphtheria, once a scourge in many communities, is no longer feared in that county. Quoting from the article: "A diphtheria epidemic is one thing which throws no scare into the parents of Kingman county. They know that no schools are going to be closed on account of it. They know their families are not going to be pitiful wrecks from the after effects of the disease and they know they are not going to have to sit at the bedside of some helpless child and watch it slowly choke to death. It is a feeling of safety and security that cannot be measured and at the same time it is so cheap." It seems that in 1926 every school child in this county was immunized against diphtheria and at intervals of two years since that time children of pre-school age were similarly treated. During this twelve year period there has not been a death from diphtheria within that county and but three cases have been reported, each of these in families that had moved in from elsewhere. This Kansas county is but one of several hundred over the country that boast of such a fine record in preventive medicine and the credit, as a matter of course, goes to the medical profession of those communities. By the same sign there is no good reason why this record cannot be matched throughout the nation. *Diphtheria is a preventable disease*, just as are smallpox, typhoid fever and numerous other contagious diseases that formerly caused thousands of deaths annually. The measures for control are such that they work little or no hardship upon those receiving the treatment and the results certainly are most gratifying. There is no need for having a dozen cases of diphtheria in Indiana in any one year, to say nothing of the deaths that are bound to ensue from its ravages. What are we going to do about it?

The State of New York has officially banned the showing of the moving picture "The Birth of a Baby" in the theaters of that state. The editor of the *Journal of the Connecticut State Medical Society* comments upon the action as follows:

"Public showing of 'The Birth of a Baby' has been prohibited in New York State. That alone is not so startling although it is distinctly disappointing to the proponents of health education. The grounds on which the Education Commissioner denied the license are absurd, to say the least. Granting, in his ruling, that the picture is a 'medical treatise in pictorial form presented for the alleged

purpose of enlightening prospective fathers and mothers,' Commissioner Grant then delivers the knock-out blow by classifying the film as 'indecent, immoral and would tend to corrupt morals.' Small wonder that the editor of the *Ohio State Medical Journal* is forced to snicker! New York apparently prefers to teach its youngsters how to be 'big-shot gangsters and Twentieth Century Casanovas,' and, instead of presenting a picture of home life as it should be, would familiarize its youthful citizens with the secrets of the 'Gold Coast harems'."

Also commenting upon the film, the *New York Times* for March 17, 1938, under the title "Immoral or Educational?" had the following to say:

"The American Committee on Maternal Welfare has prepared an educational film in dramatic form which is entitled 'The Birth of a Baby' and which has been branded as 'indecent, immoral and tending to corrupt morals' by the educational authorities of the State. It is hard to take this opinion seriously in face of a sponsorship which includes such important bodies as the American Medical Association, the United States Public Health Service, the American College of Surgeons, the American Public Health Association, the Department of Labor, the American Gynecological Society, or in face of the fact that the production was supervised by five eminent obstetricians connected with ranking hospitals and universities. Actually the story of pregnancy and the need of medical care in a critical period of a prospective mother's life is told with the simplicity, frankness and reverence that one of the supreme miracles of nature demands. Moreover, the committee will see to it that the film is advertised with the restraint that its sponsors and the public expect and that it will not be coupled with plays which may counteract whatever wholesome influence it may exert.

"Our obstetrical record is appalling when compared with that of some other countries. In 1936 about 12,000 mothers died in childbirth in the United States; about 30,000 babies died within twenty-four hours after they were born; 40,000 more babies died before they were a month old. These deaths must be attributed in part to ignorance, fear, an unwillingness to face the responsibilities of parenthood, an attitude of secrecy about sex that couples mystery with pruriency. The obvious remedy is education. And the most powerful of all means of education should be a film which physicians have directed and which physicians have approved.

"Experience has shown that the words 'syphilis' and 'gonorrhea' must be used in print if venereal diseases are to be controlled. Novels, plays, books on the social sciences discuss sex with a frankness that would have seemed incredible at the turn of the century. Endorsed as it is by the foremost medical and civic organizations, the 'Birth of a Baby' merely follows the trend of the times. The experiment of exhibiting it with the safeguards provided should be made."

President's Page

HUMAN PROGRESS INFLUENCED BY MASSES

The ordinary man never has been given the credit he deserves for human progress. Generally speaking, he has prepared the way for pioneers and prophets. Many of the revolutionary ideas which we attribute to genius were born of the people. Many reforms which appear to have been brought about by a master mind really began among the masses. Human experience is our most instructive teacher and somehow it has a way of reaching the common folk as well as the so-called upper classes. When it was written that "Coming events cast their shadows before," certainly the author meant that one could feel the approach of mass movements from underneath.

While obviously controlled from above, the lower social strata always have been in a better position to break away from the existing order, perhaps because they had so little to lose. Frequently experimentation especially along social, political and religious lines, has originated among the people whom history overlooked. Frequently the great doctrines and pronouncements which have made a few men famous were really the expression of the masses.

The fact that vast multitudes of people had lost faith in polytheism prepared the way for Christianity. The fact that millions of people had learned to live and work collectively under the Czars prepared the way for Soviet Russia. The town meeting and the church vestry prepared the way for our own republic.

Someone once said that revolution begins in the cellar. This is no doubt true, and in most instances it perhaps begins a long time before it is recognized or understood. If you would know what changes are likely to occur in society in general, watch what

the people at the bottom are doing; listen to what they are saying, particularly in regard to the things with which they are dissatisfied and the methods by which they would correct these things. During the recent depression, all sorts of prophecies were made. Revolution was prophesied. Others believed that fundamental social changes and changes in government would occur. As a matter of record, we suffered little on this account. The American people had not reached the point where they believed that there was anything basically wrong with their form of government or the social order. When the masses really want change, they do not wait for a leader to help them smash things; they generally seek opportunity to experiment on a small scale.

Revolutionary ideas are much more apt to produce leadership than is leadership to produce revolutionary ideas. This is another way of saying that crises produce great men. What we call the "masses" have contributed quite as much to make men great as has individual talent, and certainly those masses have played a very important part in the evolution of human ideas.

No doubt you, Mr. Reader, are beginning to ask "What is the guy driving at?" This line of thinking was precipitated by the thought of how we are going to distribute graduate education. The officers of the Indiana State Medical Association recognize one of the most important objectives of organized medicine to be the distribution of graduate education. The Indiana State Medical Association has available the money, they have available the teachers, and they have available the methods by which graduate education can be distributed, but they cannot go about the job of distributing it until you fellows want it.

Harman M. Parker

Research in Indiana Banking

ROBERT H. MYERS

Vice-President, Indiana Bankers Association

Muncie

Banking in Indiana and in the United States has undergone some fundamental changes in the last twenty years. Formerly, in the average bank, the customers who patronized the loan and investment windows, and possibly the trust department, paid all the bank's expenses and furnished whatever dividends and additions to undivided profits there were. That condition no longer is true.

Within these two decades, security investments have displaced loans as the major earning asset. Analysis of these investments shows that government bond holdings have increased tremendously. For Hoosier banks, as a whole, this increase amounted to 700 per cent. The change was most striking in the case of Indiana state banks, which skyrocketed their government holdings in twenty years by 190 times (not per cent).

These changes, obviously, have had a profound effect upon bank earnings. The Research Committee of the Indiana Bankers Association finds that a decline of asset earnings is the clearly indicated trend in banking, because of the decrease in loans (the relatively high income producers) and the increase in security investments (the relatively low income producers), and because of the lower interest rates obtainable on both.

The experience of Indiana banks is not unusual in these respects. Interest income of all national banks in the United States has decreased drastically in the last few years. The problem of great and immediate concern to bank management is that of developing new sources of revenue, if chartered banking as we have known it is to continue to exist upon a sound basis. Fees for services formerly rendered free or at less than cost are the logical answer to this problem. This accounts for the growing movement in all banks, outside the borders of our own state as well as within, to adopt the fair principle of making each department and each transaction pay its way, so far as is practicable.

As a matter of fact, through depositing and service departments the banks serve many more customers than are contacted through loan, investment and trust functions. That is, for every loan, investment or trust customer, the banks have at least twenty deposit and service customers. It is nothing less than simple equity that the few should not be asked to bear the entire expense-burden of the many.

I do not wish to be misunderstood: Loans and investments still produce the largest proportion

of bank revenue, but those assets no longer are sufficient, within themselves, to produce adequate revenue to operate our banks soundly.

The continued subnormal yields on securities, particularly government bonds, have had an adverse effect on bank depositors as well as the banks. The "wages of capital" have been more than cut in two within the past five years. By "capital" I

do not mean merely large accumulations; I refer to bank savings depositors, building and loan investors, life insurance policy holders—the great body of people of moderate means who try to live within their incomes and save something. These thrifty folk have seen the "wages" (interest and dividends) from their modest accumulations decline almost to the vanishing point. Responsibility for this condition does not rest with the financial institutions, which are themselves faced with the same perplexing problem of trying to invest

funds safely and secure a reasonable rate of return.

Indiana banks are not enjoying an enviable dividend-paying record. The salaries paid—both official and clerical—suffer by comparison with positions in other professions and businesses of like responsibility and required training. The record shows that our Hoosier banks are over-burdened with taxes, principally because they are paying for their depositors the state tax on money, thus making bank deposits tax-free to the depositors.

The Research Report of the Indiana Bankers Association to which I referred earlier devoted some study to the general economic trends in our state, which no doubt are typical of the country as a whole; at least of the Middle West. Although the population of Indiana has been increasing steadily since the year 1800, only sixteen of the ninety-two counties increased in population in the past two decades by as much as or more than the state average increase. Fifty-eight counties actually had a smaller population in 1930 than in 1920. Almost without exception the increases in population were greater in the counties containing larger industrial cities.

Since the relationship between population and banking is direct, this part of the study is of deep interest. In point of fact, our generation has witnessed the transition of our state from one rather well balanced between town and country, to a commonwealth predominantly urban and industrial in the dynamics of its economy.



R. H. Myers

Similar reviews were made of manufacturing and merchandising trends in Indiana. The development of chain organizations in both fields was noted. That development strengthened the working capital of those concerns and made them less likely customers for bank commercial loans. The growth of finance companies, creating another negative effect on bank commercial loans, was observed.

Finally, a survey of agriculture shows that commercial banking now has vigorous competition from New Deal lending agencies. The banks still are providing the needed funds (at distressingly low rates), but instead of lending directly to our farmers, the banks are advancing the money to the federal government (through investment in government bonds); the government, through its farm credit agencies, makes the actual loans to the farmers.

Notwithstanding the extinction of a large number of Indiana banks (and this condition is by no means peculiar to Indiana) within the last twenty years, the remaining units are widely diffused throughout the state and all communities with any appreciable demand for banking facilities are believed to be adequately served by banks.

The average resources per bank have almost trebled in Indiana in the last two decades. Thus, it is probable that the ability of the average Indiana bank to serve its clientele, as measured by its resources, has kept approximate pace with the increased size to which manufacturing and merchandising establishments have grown.

Banking service of a high order is being maintained for public use. Proper bank credit is abundantly available. Of course, it never has been, and is not now, sound commercial banking to make advances for capital purposes, or to tie up depositors' funds in illiquid loans or investments.

I believe I have written enough to reveal that we in the banking business have our problems, which to us seem quite as puzzling sometimes as those confronting members of the medical profession.

There is a growing vigor in the activities of the associations of bankers—city, county, regional, state and national. Banking conferences are held, at which pressing problems are discussed, views are swapped, solutions are suggested. Research projects are undertaken. Notable in this direction is the effort of the Indiana Bankers Association, in conjunction with the School of Business Administration of Indiana University. The first publication of the Research Committee, to which I have referred in this article, achieved national recognition last year for its quality and practical value. The second published report will be available in about a month. We confidently expect it to surpass the first one in worth and usefulness.

We believe the function of banking research is to discover the truth about banking. In these association activities and research projects we are following the trail blazed for us by the medical profession.

May Day

Plans for a state-wide celebration of Child Health Day, which is to be observed on Sunday, May 1, are being formulated. The central organization is to be carried out through the Bureau of Maternal and Child Health of the Indiana State Board of Health. May Day activities are to start on Sunday, May 1, with the ensuing week being observed as Child Health Week, May 1 to 7.

Child Health Day activities are sponsored by the Bureau of Maternal and Child Health of the Indiana State Board of Health at the request of the U. S. Children's Bureau, and the State and Provincial Health Authorities of North America in accordance with the Congressional Resolution of May 19, 1928. This is also in accordance with the provisions outlined by the Indiana State Medical Association for participation of county medical societies in the general public health program for May. A plan similar to the one followed last year will be used again this year, namely, the appointment of the secretary of the county medical society as temporary May Day chairman.

The following suggestions for observance of May Day this year are to be made to the local county medical societies, teachers, public health nurses, and to all interested public and private agencies.

SLOGAN:

Speed children on the road to health.

OBJECTIVE:

Every community to make full use of its resources in order to insure to children safe birth, normal growth, and protection against disease and accident in their progress from infancy to maturity.

LEADERSHIP:

State May Day chairmen appointed by State health officers arrange for the cooperation of State and local public health agencies and private organizations in planning May Day activities that will contribute to year-round child-health activities. State departments of education cooperate in planning school Child Health Day programs.

PROGRAM:

For community groups—(1) Review of local child-health activities; (2) planning for the extension and improvement of child-health programs; and (3) presentation of special child-health needs requiring the attention of parents and others in their community.

By children—exhibits, demonstrations, programs, plays, games, and festivals, illustrating the health needs of children, healthful activities and progress made during the year in their knowledge concerning the protection of their own health and of the health of the community. It is suggested that rural schools which close before May 1st hold their health pageants and plays before the end of the school term.

For the public—news, stories, radio talks, speeches, posters, exhibits.

For information and materials on the state-wide program for 1938 May Day celebration, write to the Bureau of Maternal and Child Health, Indiana State Board of Health, State House Annex, Indianapolis, Indiana.

Cancer: A Challenge

FRANK L. RECTOR, M.D.*

Evanston, Illinois

Fundamental knowledge about cancer is changing rapidly. So long as research into this problem was confined to its clinical aspects, little progress was made in understanding it; but when research moved out of the consulting room and hospital into the related sciences of chemistry, biology, and physics, new light soon broke.

The specific etiology has long been sought, but unsuccessfully, in the bacteriological field. Recent studies in the chemistry and biology of living cells are furnishing many significant clues. The individuality of cancer is daily becoming more apparent. Just as persons have their own individuality, so are cancers marked by the same differences. At this time it is believed that a single etiological factor for the many known types of cancer is not probable.

Cancer is, therefore, an individual problem. It is impossible to lay down standards of diagnosis, treatment, or control of this disease that will apply to any considerable group of patients. Inasmuch as cancer is an expression of a renewed growth of tissue in the body of its victim, just so must the control of cancer rest with the patient and his physician. *What* these two do and *when* they do it, individually and collectively, will determine the control of this disease.

The control of cancer is a challenge both to the laity and to the medical profession. For the laity, this challenge can be met by a determination to know existing facts about the cause, treatment, and prevention of the disease. It means the abandonment of age-old fallacies and misconceptions of the cause and course of cancer. It means a willingness to become informed and to keep abreast of factual knowledge about this condition. It means that unreasoning fear must be replaced by a healthy caution that will secure competent medical advice in time to prevent death, once the disease is established, and will enable steps to be taken to prevent the beginning of the disease.

The challenge to the medical profession is that of keeping abreast of scientific knowledge in the field of diagnosis and treatment, and of utilizing these facts in such a way as to enable the public

to profit fully from them. The medical profession must realize that the resistance of the thinking public to the cancer question is rapidly breaking down. Intelligent laymen are eager to become informed about this disease, and are looking to their medical advisors for help in controlling it. This places upon the profession the responsibility of serving the laity by competent examinations and adequate treatment whenever indicated.

When it is realized that from one-third to one-half of all cancer deaths can be prevented if existing information about the control of this disease is fully utilized by the medical profession and the public, the responsibility of the profession needs no further emphasis. When it is also realized that deaths from cancer of such sites as skin, mouth, breast, and uterus are preventable to the extent of 75 to 95 per cent, this responsibility of the profession, as well as of the layman, becomes one of first importance.

The objection that a cooperative educational program on cancer increases the fears of certain individuals to the point of a phobia may be readily discounted. There is no evidence that this is true, but much evidence to the contrary. For those members of the profession, few in number, who fall back on this objection as an excuse for not supporting the educational program, it is only necessary to point out that cancerphobia never metastasizes and never kills. Evidence of the value of a conservative lay educational program is overwhelming. Throughout the country come reports of thousands of persons who, for the first time, have sought medical advice regarding cancer. As the program continues, other thousands will join this procession.

The function of the Women's Field Army of the American Society for the Control of Cancer is that of lay education. This program is under the direction and control of the state medical organization in each of the forty-five states where it is now active. For the first time in the history of health education in this country, a national program of this character was begun only after it was approved and sponsored by the organized medical profession. From the beginning those responsible for this program realized that its educational activities



* Field Representative, American Society for the Control of Cancer.

(Concluded on page 218)

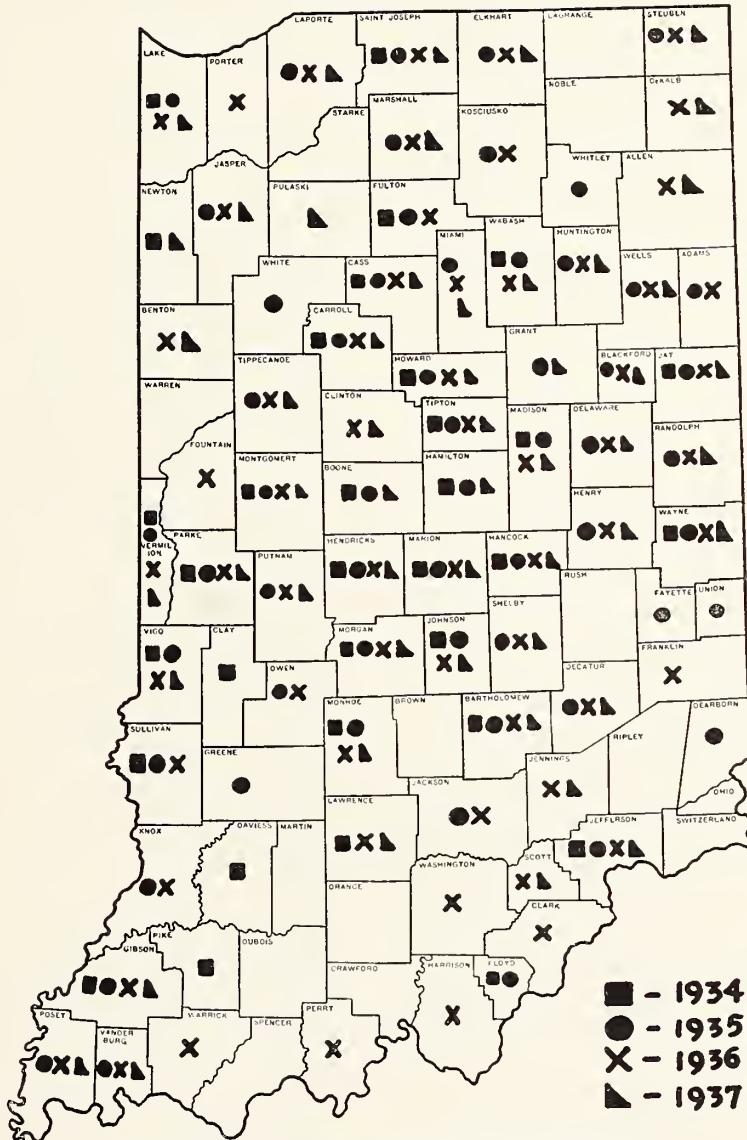
Annual Postgraduate Program May 23 - 27, 1938

The growing interest in graduate study by physicians of the State is well demonstrated by the map of Indiana which shows the number of counties from which physicians have registered for the postgraduate course. The number of physicians during the past four years has increased from 83 to 492. These registrations show an increase in counties represented from 32 to 62. It is significant that distance has not proved a handicap for registration in a centrally given course.

Every effort is being made to give, through emphasis on clinical instruction, an even better course this coming year. With the approval of the Council of the Indiana State Medical Association, and at the request of the War Department, credit will be given members of the Medical Officers Reserve Corps for attendance at this meeting. This does not imply that the course will be one of Military Medicine. The time allotted for this instruction is so designed as to add to the all-inclusive character of the course. The date of the meeting is May 23 to 27, inclusive.

The application of recent studies in the physi-

ology of circulation has a very practical use in every phase of medical practice. Attend the annual Postgraduate Course, May 23 to 27, inclusive, and learn how you may use these recent studies to relieve your patients.



ATTENDANCE AT ANNUAL POSTGRADUATE COURSE

1934: 83 physicians representing 32 counties
1935: 184 physicians representing 57 counties
1936: 238 physicians representing 48 counties
1937: 492 physicians representing 62 counties

The State Pediatric Association will hold their annual spring meeting in conjunction with the annual Postgraduate Course. On this day special emphasis on child health problems will be given consideration. The opportunity to gain a better understanding of children's diseases is of value in your practice.

One day of the Postgraduate Course will be dedicated to the county secretaries. At this time, their annual dinner will be given. There will be ample opportunity for free discussion of their many problems.

The panel discussions and clinico-pathological conferences will be given with new subjects and new clinical

material. Any one who has previously attended the meetings can testify to the practical value of this portion of the program.

Look for the complete program in the May JOURNAL. You cannot afford to miss this course.

Medical Care For All The People

FUZZY IDEAS OR FACTS AND REMEDIES?

R. L. SENSENICH, M.D.

Fuzzy thought, loose opinion, and unfounded sentiment create a drifting haziness about most questions concerning which there is limited factual data. This applies especially to the subject of medical care. Owing to financial stress, confusion is increased by propaganda for economic changes. Plans often assume that the economic man can be isolated from the man of flesh and feeling, and basic human values are disregarded in the name of humanity and service. However big problems may seem, most of them may be resolved into smaller problems and solved by simple answers. Bigness is often created due to the search for a single answer to meet a problem combining many questions. A complex national problem of medical care is reduced to a relatively simple one if it is considered separately in each county in the United States.

This investigation of medical care is not planned for statistical studies by the American Medical Association, but for the benefit of your community and you, and is your activity. If remedies are needed they should be instituted. If none is needed, it is equally important that this fact be established. The American Medical Association will extend every possible assistance and offer guidance as to workable methods and acceptable principles, but the success of this program in your community will depend upon you.

Surveys announced by the Public Health Service indicate that sickness is not to any extent more frequent among the groups having annual incomes of one thousand dollars, or less, than in the groups including all incomes, large and small. The greatest incidence of illness among the poor, often used as an argument for change of medical practice, is apparently in the relief group, already the responsibility of governmental agencies. **If individuals on relief are not receiving needed medical care, it is because of the failure of governmental agencies to function.** This fact should be established and sound remedies demanded. Inadequate or unethical medical relief, no matter whether it is due to medical or political causes, is not to be overlooked. However, this study should not be centered solely upon indigent relief. It should give the same conscientious consideration to the needs of the low-income groups, both in treatment and in preventive medicine. The financial problem of the catastrophic illness to the low-income group must be recognized. Many county societies are operating practicable plans for adjusting charges and manner of post-payments to the income of the individual. Some county societies have never con-

ferred with or advised lay organizations or social service groups in their activities. They may hesitate to make this approach and may fear that such groups will be unwilling to co-operate or give fair consideration to medical problems. Experience, however, reveals that most of these activities are supported by individuals who wish to give proper service to the less fortunate. They generally have physician friends with whom they would gladly confer as to the activities of their organizations, if given an opportunity.

The medical profession has maintained that it is the only group competent to judge the adequacy of medical service, and to determine medical standards. Institutions change, but the affective and instinctive man remains. Recognition of certain basic principles has been found necessary to the care of the sick. These principles apply to medical service in the social and economic life of all times. This is the background of the tradition of unfailing service and continued scientific progress, second to none, even through periods of social and political chaos. From this foundation must the fight be made to remain free from government control, direct or indirect, in the science and practice of medicine.

A national plan of medical service to fit all conditions, based upon governmental financing, which could be controlled according to the best medical standards by the profession, is contrary to all experience. A medical organization can, however, determine the medical needs of its own community, and so organize local efforts as to meet those needs more adequately than any other agency. This done, there can be no major national problem. In this projected study in each county, all sides must be heard. A sampling of individual opinions of county secretaries, no matter how accurate those appraisals might be, will not suffice. It must not be charged that the results of these studies are biased medical opinion, unsupported by the experience of those outside of medicine. In the main, the profession is kinder, more understanding and just than many of those who criticize it.

To the whole study must be applied a seasoned judgment upon which any needed remedies may be recommended. It is a responsibility in which each member of organized medicine has a part. Medicine has never failed—in individual sickness, in pestilence, war, and world social upheavals. Stronger today than ever before, it may confidently be expected to meet its responsibilities.

Medicine must lead in a fair consideration of any problems of medical care, and point the way.

From the Northwest Regional Conference

We are publishing herewith a few of the papers presented before the Northwest Regional Conference at the Palmer House in Chicago, February 13, 1938, for which conference the Indiana State Medical Association was host. Some of the papers were not available for publication, others were not suitable for publication because of the use of charts and slides with them. Because of the amount of space devoted to these papers, the articles presented before the Indiana Secretaries' Conference will not be published.—Editor.

A STUDY OF MEDICAL CARE

R. G. LELAND, M.D.

DIRECTOR, BUREAU OF MEDICAL ECONOMICS
AMERICAN MEDICAL ASSOCIATION

Chicago

The supporters of state managed medicine have for several years continued to attack the motives and the methods of practice of the American medical profession. They have sent scouts scurrying about foreign countries for reports and descriptions of sickness insurance; they have travelled the Volga by boat to look at Russian medicine; they have organized cooperatives to practice medicine for special groups; they have garbled statistics; they have sought by the use of almost every known medium to create the belief in the minds of the American people that the medical profession in the United States is obstructing the distribution of medical services to the groups of people who have low incomes.

Organizers have sought the attention of groups of people in industry, business, commerce, agriculture, fraternal orders, educational institutions and employees in public service in an effort to inflame them against the kind of medical service that is provided by the private practicing physician. In this agitation for a change in medical practice there have been many elements of a social revolution. The scattered "brain-trusters" who would plan new methods of medical practice have constantly refused to recognize the steadfast purpose and the continued forward advance that have characterized medicine since the earliest times. This steadfastness of purpose and unswerving effort to benefit humanity have characterized the American medical profession from the very date of its organization in 1847. The early volumes of transactions of the American Medical Association contain hundreds of references to discussions, reports, recommendations and the realization of progress on such subjects as epidemics, vital statistics, the organization of state boards of health, medical education and licensure, the regulation of the quality of drugs, information concerning nostrums and quackery, and many other subjects which are ultimately of vital concern to the public in the quality and efficiency of medical services.

The latest step in the last decade of a century long program of genuine concern over the quality

and distribution of medical services to the people of the United States is to be found in the resolutions recently adopted by the Board of Trustees of the American Medical Association designed to assist and encourage state and county medical societies to collect information concerning medical needs, and to formulate preferable procedures to supply these needs in accordance with established policies and local conditions.

WHEREAS, A varying number of people may at times be insufficiently supplied with needed medical service for the maintenance of health and the prevention of disease; and

WHEREAS, The means of supplying medical service differ in various communities; be it

RESOLVED, That the American Medical Association stimulate the state and county medical societies to assume leadership, securing cooperation of state and local health agencies, hospital authorities, and dental, nursing and correlated professions, welfare agencies and community chests in determining for each county in the United States the prevailing need for medical and preventive medical service where such may be insufficient or unavailable; and that such state and county medical societies develop for each county the preferable procedure for supplying these several needs, utilizing to the fullest extent medical and health agencies now available, in accordance with the established policies of the American Medical Association; be it further

RESOLVED, That the Board of Trustees of the American Medical Association establish a committee to cooperate with the Bureau of Medical Economics in outlining the necessary procedures for making further studies and reports of the prevailing need for medical and preventive medical services; and that the secretary of the American Medi-

cal Association arrange to develop such activities through the secretaries of state and county medical societies in each instance, urging the formation of special committees in each county and state where committees are not available for this purpose.

The Outline for Proposed Plan of Study of Medical Care which has already been distributed to the secretaries of state medical societies contains suggestions intended to be helpful to state and county medical societies in organizing their own methods and procedures contemplated in the resolutions. This outline presents the objectives, procedures, scope of study, organization of demand and supply, and general considerations concerning methods, reports of findings and recommendations. State and county medical societies will also be furnished with suggestions on the conduct of the study and with blank forms which are to be used in the conduct of the study.

It would be foolish to assume or to assert that every person in the United States who needs it is receiving appropriate medical attention. Moreover, it is impossible to state in absolute figures or percentages the number of persons who are not receiving needed medical attention. Whatever the percentage or absolute number may be, the medical and preventive medical care of sick people should be for the most part a local responsibility. The proposed study of medical care is to be an effort on the part of state and county medical societies to evaluate the medical needs in their respective jurisdictions, and to recommend preferable procedures to meet these needs. In short, this study is to be a medical service inventory or a balance sheet of the demand and the supply of medical services in each county.

It is not contemplated that county medical societies should make a house-to-house canvass for the purpose of enumerating the prevalence of all types of disease at a particular time, although the extent of the study and the methods to be used are to be left largely to the judgment of each county medical society with such assistance as they may request from their state medical society headquarters. It is urged that information as to medical needs be sought from every official and voluntary agency or organization or their representatives that have any interest in the provision for medical care for the indigent or low-income groups.

It will be insufficient to inquire simply as to the need for medical services. A careful search must be made to determine whether the people who need medical care desire such care, and whether they have knowledge of the proper individual or place to which to apply for such services. It is recognized that the extent and manner of conducting the study will vary according to the size, geographical location, nature of the population, and many other characteristics of the several counties throughout the United States.

When the information concerning the number

and nature of the deficiencies in medical services has been collected, the second step in the study will be to examine these deficiencies carefully and to make recommendations concerning the preferable procedures to correct the deficiencies. A final step necessarily must follow the study and recommendations in those communities in which deficiencies are found, viz., the responsibility that must be assumed by county medical societies to carry out those preferable procedures which are intended to correct the deficiencies found. It is this final step which involves the determination of county medical societies actually to carry out these procedures that will be of the greatest concern to the public.

The medical profession must not consider this project as a defensive counter attack against an offensive advance by the enemies of the medical profession. This study is but the continued advance of medical organizations against a common enemy—disease. The forward march of medicine is along several sectors: medical research, medical education, health education of the public, legislation, the examination and evaluation of drugs and appliances, and now a better organization and more equitable distribution of medical services and facilities especially to the indigent and low-income groups.

Medicine has always been its own most severe critic. The outcome of this present self-examination will depend on the enthusiasm, the thoroughness, the friendliness, the absence of prejudice and preconceptions, the scientific spirit, and the recognition of the importance of this project that can be brought to bear by every medical society on the problem of the distribution of medical service.

The outcome will be of the greatest importance to the medical profession as well as the public. Let it never be charged that the medical profession considered its own interests first. On the contrary, the reward which the American medical profession seeks is to extend the benefits of medical care to all who need them, to effect a further reduction of morbidity and mortality, to remove obstacles which may now exist between patients and the medical care they need. In short, as a result of this study it is hoped that good medical care may be made available to everyone through the free and independent institution of American medicine.

ANNUAL POSTGRADUATE PROGRAM
WILL BE PRESENTED
IN INDIANAPOLIS
MAY 23 TO 27, 1938
PLAN TO BE THERE!

THE COUNTY MEDICAL SOCIETY

JOHN F. AUSTIN, Executive Secretary

SEDGWICK COUNTY MEDICAL SOCIETY

Wichita, Kansas

In this changing social order, medicine, like other component parts of our economic system, has found itself being analyzed from within and without by agencies, institutions and individuals looking for possible readjustment in the function of the unit.

In the past year more effort has been directed toward a readjusted medical plan than at any time in the lengthy and honorable history of medicine in this nation. With the first of 1937 a bill was introduced in congress by Senator Capper of Kansas proposing a plan of health insurance. It is now in committee, but revision is reported in the offing.

In June came the meeting of the American Medical Association and a self-invited guest, Senator J. "Ham" Lewis, sounded advance warning of the regimentation of the medical profession. The following month he introduced a joint senate resolution, unique in its terseness, which would demand that physicians give aid to indigents when it was requested, with jail as a penalty for failure to respond.

Another "feeler" in the medical scene was advanced in September when the Group Health Association, embracing some 2,000 members of the Home Owners Loan Corporation, was formed in the nation's capital.

Spring arrived and with it came the American Foundation's 1,500 page report based upon information gleaned from the letters of some 2,100 physicians.

As the year waned the so-styled "revolt of the 430" appeared, to be documented in the year's calendar of medical meditation.

Then the new year began its course, and on January 15 of this year there appeared in the editorial section of *The Journal of the American Medical Association*, two columns of type under the caption: "Medical Care For All the People."

And that is the general subject of this conference today.

What has all this to do with the county medical society? Everything.

A few years ago the county and state medical societies were concerned almost solely with the scientific progress of the profession. In more recent years these units of organized medicine have been confronted with social and political trends which have given rise to an expanded field of medical economics. Realizing that the economic aspects of medicine concern not only the profession but society at large, we find organized medicine today has a definite place in the realm of public relations and legislation.

The county medical society is the basis of the structure of medical organization—the medical trust, as it has been termed. A physician said in a recent councilor meeting in our state, "We have

been called a medical trust for years with no basis whatsoever—maybe it's time we gave them some reason for their allegations." Perhaps that is a challenge well sounded.

In its editorial of January 15 the American Medical Association, through its Board of Trustees, placed the fundamental responsibility of medical care of the people in the hands of the county medical societies with the recommendations that the local societies "assume leadership, securing cooperation of the state and local health agencies, hospital authorities, the dental, nursing and correlated professions, welfare agencies and community chests."

Within the past decade this very recommendation has been carried out in a few county societies scattered over the nation. I have been asked to discuss today the Sedgwick County Plan, which has been in effect and evolution in Wichita, Kansas for six years.

Under this plan there is no reason why medical care should not be available to all the people. In a three-fold system the Sedgwick County Medical Society has dealt with the indigent, the borderline or low income group and the well-to-do class.

The indigent patient is handled through the county clinic and the county hospital; a Medical Service Bureau has been established to aid the borderline patient, and a Medical-Dental Credit Bureau has been set up for the collection of delinquent accounts.

First of these units to be established was the clinic and hospital.

In 1931 Bill Burns, executive secretary of the Michigan State Society and at that time executive secretary of the Wayne County Medical Society, was invited to Wichita to talk before a Society meeting on the subject of medical organization. Shortly thereafter the Society voted to reorganize and employ a full time lay executive secretary.

Appointment of committees was one of the first steps in reorganization. These were selected with the view of dealing with various problems and agencies then existing. There were some seventeen or eighteen clinics and institutions operating in a highly disintegrated fashion. The school system had a clinic to look after immunization. There were pre-natal clinics, a tuberculosis clinic, a baby clinic, a Mexican clinic and the like. The Crippled Childrens law then in effect was highly detrimental to the profession.

As the depression progressed, the problem of medical care for the indigent became acute. A committee began studying plans whereby these persons might receive care. The result was a contract with the county commissioners, to furnish all medical service to the indigent, and the formation of a

rotating charity staff and the county clinic and hospital.

The rotating staff consists of services in general medicine, general surgery, obstetrics and gynecology, urology, proctology, eye, ear, nose and throat, radiology, etc. Services are divided into three months duration with a chief of service, house attendant, alternate, director of out-patient service, out-patient attendant and intern for each service.

Men on these services are present at the clinic on appointed days and hours. The rotating staff operates under the Board of County Commissioners and compensation for this service is paid directly to the medical society. This sum, under the emergency days of the depression, was \$200 per month. The amount has since been raised to \$500 per month.

Location, space, equipment, personnel, supplies and drugs are furnished and paid for by the county. A county physician, selected by the Medical Society, and appointed by the county commissioners has supervision over the clinic and the hospital. Assisting him are three residents, two interns, three technicians and thirty nurses.

Administrative affairs are directed by the county physician. The executive council, comprised of six men serving terms of from one to three years, is the governing body of the hospital and clinic. The president of the rotating staff is the chairman of the executive council. It is this body that deals with the county commissioners in matters concerning policy and improvement in the hospital and clinic.

All indigent patients clear through the county clinic before being referred to the hospital, except in case of emergency. A central application bureau is maintained in the clinic building where applicants for county care are certified. This work is carried on by a corps of social workers. The application bureau serves as a clearing house for all the social agencies in the community in an aim to eliminate duplication of effort and expense.

In 1937, 36,799 patients were seen in the county clinic. Total cost of operation of the clinic, including salaries, compensation to the Medical Society, supplies, drugs, etc., was \$32,924—representing an average cost per patient of 90 cents, and 70 cents per dental patient. The accountant at the clinic not only computes the cost of medical care under this plan, but also makes a comparative statement showing what the cost would be if computed on a standard fee basis. This figure would total \$113,023 compared with \$32,924, showing a potential saving to the county of \$80,098.

A comparison of figures for the county hospital shows for the same year that 2,212 patients were hospitalized. This totals 23,307 hospital days at a cost of \$54,631, or \$2.35 per hospital day per patient. The same bill figured on a \$3.00 per day hospital charge with major and minor operations at schedule prices would have totaled \$161,657, or approximately \$7.00 per day. The saving to

the county in this phase of medical care would be \$107,000.

In summary, the cost of indigent care in Sedgwick County in 1937 was \$97,555. The cost under a scheduled fee plan would have been \$274,680. The potential saving to the county, then, was \$187,125.

At the present time in Kansas an attempt is being made by the board of social welfare to secure a portion of the sales tax funds for medical care for the indigent. If obtained this money probably would be allotted to the respective counties on the basis of their indigent population. Under such a plan county medical societies which have undertaken care of the indigent probably would receive far more compensation than under the present plan. This would be especially true of Sedgwick County. The \$200 a month payment was made to the Society in time of an emergency. The \$500 now received monthly is not set forth as a fair amount for the work done, but in view of pending change the work is being carried on in status quo.

The Medical-Dental Credit Bureau was formed two years ago as a branch of the Medical Society. Members of the Dental association were given opportunity to share its services with the physicians.

Of a potential 200 physicians and dentists, about 145 are now using the bureau. The plan of operation is as follows: The first notice to the debtor of his delinquent account is followed in seven days by a telephone call or another letter if the debtor cannot be reached by phone. If payment is not begun, a third letter is addressed to him at his place of business. The next step is a letter to the employer requesting his cooperation to avoid legal action against the employe. The final step is legal action, which must be brought by the physician himself, as credit concerns cannot sue in the State of Kansas.

Charges for services of the bureau are as follows: For accounts under six months, 25 per cent; accounts over six months and up to two years, 33½ per cent; out-of-town accounts, accounts over two years, accounts requiring tracing and accounts under \$10 and over six months, 50 per cent. The statute of limitations in Kansas is three years on open account and five years on notes.

The average fee approximates 35 per cent, which is about 2 per cent higher than the commercial agencies. However, the per cent of collections is above the national average, which is 15 to 16 per cent.

One of the greatest assets of a medical credit bureau is the psychological effect it creates in impressing upon the patient the value of medical credit. The increase in payments made directly into the doctor's office, both on account and cash, has been inestimable.

A deadbeat reporting service is maintained by the bureau for the use of its customers. This information may be obtained by a telephone call

to the bureau offices. The cost of publishing such a list periodically is prohibitive.

The matter of getting the physicians to use the Society's collection service rather than that of a commercial agency is one of time and education.

The third and newest branch of the Sedgwick County Medical Society's three-fold plan is the Medical Service Bureau. This Bureau has been in operation eleven months and has proved itself to be a vital link in the chain of medical care for all the people.

The purpose of this agency, to which the Community Chest contributes appreciably, is to determine the patient's ability to pay and scale the fee for medical service within the limits of his budget. It is this Bureau that deals with the element which is the real problem in medical care—the borderline, or low income patient, the patient who is above relief status—often just barely above, and yet is not able to pay full fees.

The Medical Service Bureau, like the Credit Bureau, is maintained in connection with the executive office, two suites of rooms being rented to house the entire structure. The supervisor of this division is an experienced case worker. She interviews the prospective patient, determines the general type of ailment from the patient's complaints, fills out a detailed report of income, assists the patient in budgeting for necessary food, clothing and shelter and the essentials of life, and from this determines the amount of surplus this patient can set aside for medical care.

The supervisor of the Bureau has complete co-operation with the central application bureau at the county clinic building and other community agencies in clearing on the patients. Often times it is necessary for her to visit in the home to determine accurately the true conditions.

Free choice of physician is maintained absolutely. The patient, when found to be eligible for assistance through the Medical Service Bureau, may select his family physician, or if he has none, may select his choice of physician from a list of physicians in the office.

The information obtained from the patient is sent to the selected physician. The amount of the fee is neither set nor recommended by the Bureau. This matter is entirely left to the physician and patient. Thus the Bureau does what the physician does not have time to do—to determine accurately just what the patient can afford to pay for his medical care.

At the end of ten months operation 475 persons had passed through the Bureau, which was established March 15, 1937. Of this number 394, or 83 per cent, were sent on to private physicians for the needed care and treatment. Forty seven, or 10 per cent, were rejected because it was found that the income was sufficient for the family to assume full responsibility for their own financial arrangements for medical service.

Thirty-four, or 7 per cent, were rejected and sent to the county clinic because they had insuffi-

cient income for medical care, even at a reduced fee.

The intake for the Medical Service Bureau comes from four main sources: physicians, 25 per cent; school nurses, 30 per cent; from the patient himself, 30 per cent, and from lay groups, other agencies and hospitals, 15 per cent.

Over 80 per cent of the families have incomes less than \$60 per month. Medical surplus in the budget amounts to about 50 cents weekly, or \$2.50 per month. Budgets are made to cover medical expenses within 12 months. Most of the bills, however, do not run that length of time.

In the case of obstetrics, pre-payment is begun if the patient reports sufficiently ahead of delivery, so that a part of the bill is paid at the time the child is born.

A very large per cent of the patients were at one time on relief—a good number are now on WPA.

We estimate that 75 per cent of the patients who have been assisted by the Medical Service Bureau would have been treated either at the free clinic or by unethical practitioners whose charge may appear to the patient to be lower.

I would like to cite one case history. Mr. X is on WPA. His family consists of a wife and two children. His elder girl, aged nine, needed a tonsillectomy. The case was referred to the Bureau by a school nurse. Mr. X supplemented his \$49 a month WPA wage by doing auto repair work at his home. He was able to pay \$20 for the operation—\$10 down and the balance in two monthly payments. Upon examination it was found the child needed glasses. The child's eyes were examined for five dollars, a standard charge agreed upon by eye men for such cases. The glasses were paid for from a fund set up by the Elks club.

Results: The child received a tonsillectomy and glasses for \$25, \$15 of which was paid at the time of service. Yet the previous year the other child had a tonsillectomy at the county hospital when the same financial situation existed in the family.

We feel that Medical Service Bureau accomplishes these functions:

1. Eliminates to a great degree the abuse of charity, by determining whether the patient could afford to pay for medical care.
2. Enables the patient to get competent medical care from a competent physician.
3. Permits a definite agreement as to the fee and the manner in which it shall be paid.
4. Preserves the doctor-patient relationship and free choice of physician.
5. Saves the physician the time required for accurately determining the patient's ability to pay.
6. Boosts the patient's morale and sense of financial independence by enabling him to pay for his service.

7. Provides a working demonstration against some of the contentions for socialized medicine.

Payments by this group have been good, in fact far in expectation of the Society at the time the Bureau was in its formative stages.

That, in brief, is a cross-sectional view of the

Sedgwick County plan to bring medical service to all classes of people.

The medical society is well represented in other community agencies and activities. It maintains a speakers bureau, press bureau, and radio bureau as a means of public education.

WISCONSIN'S PRESENT PROGRAM

JAMES C. SARGENT, M.D.

President, Wisconsin Medical Society,
Milwaukee

I have been asked to outline for you in important detail the special program that the profession of my state has undertaken in an effort better to learn and then supply the needs of the sick of our state.

In order that you may have the background necessary for a clear appreciation of this quite expansive program, I should like to remind you that at the time of the meeting of our House of Delegates last fall we had just survived a long and difficult legislative battle that had been truly disturbing. One Hon. Biemiller, a socialist from Milwaukee, had suddenly dumped into the hopper of our legislature a stack of eight bills any one of which would have revolutionized completely the care of our sick, while the sum total of the group tied end to end made a running outline of the history of the socialization of medicine from the earliest *Kranken-kassen* and Mutualities of the old world on down to the present day co-op. movement in Norway and even group hospitalization in New York.

Possibly also in the way of background, it may be important to recall that Wisconsin rightly has earned the reputation of being a distinctly progressive state; that for a full generation its political life has been colored by a distinctly social viewpoint; that it pioneered in the field of Workmen's Compensation; and that long before the New Deal had gotten around to suggest them for enactment by the several states, it had both unemployment insurance and old age pensions in effective operation.

While it may be somewhat surprising in view of our penchant for quite advanced social thinking, it is also of considerable importance to know that Wisconsin is remarkably free from any of the rattle-brained schemes of medical and hospital practice which are so rampant elsewhere throughout the land. While one attempted it and is failing, so far we have nothing to contend with in the nature of the well known and highly touted "loose-leaf" clinic of Southern California. Group hospitalization has not gained as much as a toe hold in our State. Even the long established panel system of medical practice under compensation and the long suffered county physician system of medical relief are both being rapidly opened up in

response to a growing faith in the principle of "free choice" in medical practice. It would seem quite obvious then that with a soil so fallow we are in a particularly favorable position to look to our future coolly and carefully, free from the prejudice and confusion of any misguided efforts already established.

With the State still unscathed by any of the newer experiments in sickness care, with the State normally quite advanced in its social thinking, and finally with a prophet arisen who threatened to crystallize and lead against us the full force of his inflamed and overzealous following, there is little wonder, I believe, that our House of Delegates found no difficulty in agreeing upon the urgent necessity of some program sufficiently developed to meet fairly and finally this threatening movement.

If I may generalize, I would say that the feeling back of the actions taken by our House of Delegates was twofold. On the one hand it seemed determined to know the exact truth lying behind the widely heralded charge of serious inadequacies in the supply of good sickness care under our present system. On the other hand it appeared equally determined to know what of actual good had been proved by the several long lasting and well tried newer ventures in the general field of supplied medical care.

Out of this dual interest there developed authority for four separate and distinct lines of special investigation:

First. A widespread survey to be carried on throughout the State designed to sample from a large number of its key communities the actual situation as regards the availability and the caliber of their sickness care.

Second. A critical but understanding study of the several forms of sickness care operating in Europe under state control with particular reference to the experience of those systems in countries and communities closely comparable to Wisconsin.

Third. A critical though distinctly sympathetic analysis of the whole question of the application of the insurance principle to the payment of the cost of hospitalization.

Fourth and finally. The procuring of reliable counsel and advice on both the actuarial and the legal aspects of hospital insurance.

To accomplish the first of these four special objectives, the House of Delegates authorized the President to appoint a special committee, the responsibility of which would be to circulate thoroughly about the State and to hold informal confidential conferences with those in each community having an intelligent interest and knowledge in medical affairs. It is this committee that was headed by Dr. Arveson, whose place on this program I am presently trying to fill. I am especially sorry that he is not here to give you something in detail both of the working of his committee and of the interesting things that it has already begun to find.

This Committee started its work going by automobile into the wilderness of northern Wisconsin. At frequent intervals ever since it has spent one after another two and three day week-ends in various hamlets, villages, towns, and cities throughout our State. On each evening of the day that it has been in session it calls into a dinner meeting 25 or 30 of the key men of the profession within the several nearby counties. In this way, two things are accomplished. In the first place, by thoroughly informal discussion the Committee is able to check upon and correlate its findings developed during the day; in the second place, and to everyone's considerable surprise, it has proved an excellent opportunity for bringing to the local profession much needed and much appreciated counsel from the Committee concerning matters uncovered during the day.

While this evening conference with the physicians is, of course, a necessary part in the work of our roving committee, its part is distinctly the minor. The entire daytime is spent in conference with the various people having reliable knowledge concerning the caliber and availability of sickness care in the community. On Sunday, December 12, at one of our smaller inland cities, the Committee had informal personal conferences with the County Judge, the relief supervisor, the head of the local Welfare Bureau, the head of the local Relief Department, the Superintendent of Social Security Adjustment, the county nurse, the city nurse, the company nurse of the leading industrial plant of the city, the health officer, the city physician, the head of the local Women's Club, the head of the Crippled Children's Committee of the Women's Club, the Chairman of the Local Committee on Underprivileged Children, the Superintendent of Schools and the principal of the high school, the editor of the local labor paper, the president of the local central labor council, and the attorney for labor in that community. In addition the Committee had as its guests for noon luncheon the Mayor, the city physician, the mayor of a nearby smaller community, and a State Senator from that district.

On Saturday, three weeks ago, the Committee held an all day session in our State Capitol where it had conferences with the State Health Officer, the President of the State Board of Health, the

Director of the State Welfare Department, the Administrator for W.P.A. for Wisconsin and of the Public Welfare Department, the Secretary of the Board of State Teachers College, the Director of the State Pension Department, two professors in the Economics Department of the University of Wisconsin, one a member of the recent Governor's Committee on Public Welfare, the Chairman of this same committee, the Director of Unemployment Compensation, the Chairman of the Industrial Commission, the Dean of our State Medical School, the Secretary of the Wisconsin Manufacturers Association, the Superintendent of the Wisconsin General Hospital, and the head of the Wisconsin League of Municipalities. In addition, the Committee was honored by an interview with the Governor of the State.

Last week-end the Committee spent three days in Milwaukee and I read but a few names picked at random among the 50 or more that were interviewed—the Manager of the Milwaukee County Institutions, the Superintendent of the Milwaukee County Department of Outdoor Relief, the Secretary of the Milwaukee County Community Fund, the Director of the Catholic Welfare Association, the Executive Secretary of the Society of St. Vincent dePaul, the head of the Salvation Army, the head of the Probation Department of the Milwaukee County Juvenile Court, various health officers, nurses, civic leaders, legislators, heads and counsellors of the various labor unions and trade associations, etc. etc.

To give you some impression of the thoroughness with which this Committee is going about its task, I might add that Mr. Crownhart and the Committee Chairman, Dr. Arveson, have recently spent a full week in the East where they had the privilege of long informal interviews with several national figures whose interest in the general question of the supply of sickness care is fully recognized. I refer to Michael Davis of the Rosenwald Foundation, Dr. Willard C. Rappleye, Dean of the Columbia University College of Physicians and Surgeons, Isadore Falk, Director of Health Studies and Arthur Altmeyer, Chairman of the Social Security Board, Dr. Kingsley Roberts of the Bureau of Cooperative Medicine, Dr. Frank Boudreau, late secretary of the Health Section of the League of Nations at Geneva, and others.

Purposely, I have gone at length in indicting the wide and informed source from which this Committee is gaining its information. It should be apparent from the mere recital of this list that a Committee which is at all discerning could not fail to come back to our State Society this fall with full and accurate knowledge as to just where, if at all, the supply of sickness care in Wisconsin is deficient and what if anything there is to do about it.

While it would be pure presumption for one even to hazard a guess as to what the final outcome of this survey is to be, it has gone far enough already to turn up some genuine surprises. Per-

haps one or two might be of interest here. There are some counties in Wisconsin without towns of any real size, counties in the poorer northern sections of the state. Despite their economic difficulties it is usual to find that in these counties the public health program is pretty well developed throughout the countryside. Here is an interesting fact, however. In certain of our counties which are blessed with sizable centers of industry and population, the public health program, though elaborately developed within its cities, stops dead in its track at the city limits. Milwaukee has won the annual health award of the National Chamber of Commerce so consistently in years past that it has actually been barred from competition. Yet at the same time the kids in the little red school houses on the fringe of Milwaukee County have been using old-fashioned tin cups and roller towels! In the city of Sheboygan every child is vaccinated, immunized, examined annually, and even screened for tuberculosis at high school age, yet 6,500 of the 8,000 lads and lassies in the surrounding countryside are not even vaccinated. Would anyone dare to deny that here, at least, is an astounding instance of inadequacy in sickness care?

To carry out its second main objective, the House of Delegates determined to commission our executive secretary, Mr. George Crownhart, to make a three or four months survey of the systems of medical care presently in operation in several of the large European countries. While there is a ponderous literature already available on the claimed merits and demerits of these European systems, the very divergence of views is such as to leave the minds of the profession of our State completely in turmoil over the whole affair. That is perhaps the commanding reason why it has chosen to take a look at the several foreign systems in vogue through the scrutinizing eye of our own state secretary. We hold him in sufficiently high esteem to be willing to trust very largely his judgment in such affairs. A second, though none the less pertinent reason for this novel procedure, is the feeling that our interest in the various systems of foreign medical service is of value only as it is studied in relation to problems peculiar to our own community. As an example, I would point out that while the cooperative movement in the Scandinavian countries may be found utterly inapplicable to the practice of medicine in Pittsburgh or Chicago, it is just barely possible that it might still hold some promise of usefulness for the sparsely settled sections in the northern part of our State. George Crownhart is sufficiently well known to you so that I need spend no particular time in telling you of his broad contacts. While the itinerary for his trip abroad is still quite incomplete, you may be sure that it is already sufficiently outlined for us to know that he is to have access to the fountain heads of real and trustworthy information wherever he is to go.

To accomplish the third phase of its special program our House of Delegates, for the first time

in its history, authorized the appointment of a mixed Committee on which individuals not members of our Society are being asked to serve along with an equal number of our own members. This special Committee on Hospital Insurance has been given the specific task of determining:

First. Whether there is a reasonable need in Wisconsin for the use of the insurance principle in the prepayment of the cost of hospitalization and if so,

Second. What is the best possible way to proceed in its fulfillment.

The chairmanship of this special Committee has been assigned to Dr. Stanley J. Seeger, recent Past President of our State Society, Chairman of the recently created Council on Industrial Health of our American Medical Association, for many years Chief of Staff of one of our larger private hospitals and himself vitally interested in the whole field of hospital insurance. Serving with five physicians from among our membership are five laymen, all carefully picked for their particular ability to act in our behalf. They are Sister Mary Bernadette, retiring president of the Wisconsin Conference of Catholic Hospitals; Rev. Herman L. Fritschel, Superintendent of Milwaukee Hospital and the dean of lay hospital superintendents in Wisconsin; Mrs. C. D. Partridge, executive secretary of the Wisconsin State Nurses Association; our own George Crownhart, who has for many years served as secretary of the Wisconsin Hospital Association; and Mr. C. I. Wollan who was until his recent untimely death superintendent of the Luthern Hospital in LaCrosse.

While no person was appointed to this Committee whose background and experience did not leave him completely familiar with the subject of group hospitalization in America, this Committee has spent numbers of full-day sessions in detailed study of this movement. Only a few weeks ago it was in session here in Chicago, at which time an entire day was devoted to an informal conference with Mr. J. Rufus Rorem, now Director of the Committee on Hospital Service Plans of the American Hospital Association and our own Dr. R. G. Leland, head of the Department of Economics of the American Medical Association.

While it is really a part of this study of hospital insurance, our House of Delegates as the fourth main part of its special program authorized the expenditure of a substantial sum for the employment of actuarial and legal counsel to advise it on all phases of the question of the possible application of the insurance principle to the payment of hospital costs. In fulfillment of this plan, under the supervision of our special Committee on Hospital Insurance, the services of Mr. Herman L. Ekern and his staff of legal, economic, and actuarial experts have been retained. While the agreed sum of \$10,000 may sound enormous for this purpose, I would have you know that those of us in Wisconsin who know Mr. Ekern, his peculiar fitness for the job for which he is being

employed, and particularly his own great personal interest in forward looking and social thinking, know full well that the service which he promises to perform far transcends in value this humble fee. Mr. Ekern was Insurance Commissioner in Wisconsin under the Senior LaFollette and subsequently served as attorney general. After service in the legislature, he retired from public life to the private practice of actuarial and legal counsel in insurance law. He drafted the enactment setting up our Wisconsin Teacher's Retirement Fund and had much to do with the setting up of Federal Deposit Insurance Corporation together with many other pioneer movements in the field of social insurance.

Here again it would be pure presumption for me to anticipate either the final report of this special Committee on Hospital Insurance or what the nature of the counsel and advice to be given by Mr. Ekern is to be. I am violating no confidence, however, when I indicate to you that the profession of Wisconsin is quite conscious of a number of serious defects in group hospital insurance as it is presently being set up throughout the land. Yet in spite of these misgivings, many are impressed with the possibilities for great good that lie in the application of the insurance principle to the prepayment of hospital costs. I have no doubt that this thought is strong in the minds of our committee and that under the advice of its special counsel it will endeavor to suggest some completely new and refined developments in the field of hospital insurance.

Finally, knowing your interest in the mechanics of organization work, I am certain that you would like to know something of the financial side of this whole program. As its several aspects began to crystallize in the minds of the members of our House of Delegates, the fact became evident that it would require an outlay of some \$20,000 beyond the regular costs of our routine society activities. It was merely a matter of arithmetic then to arrive at the figure of \$10 as additional income to be gotten from each one of some 2,400 members, having in mind of course that a sudden

increase in dues of this magnitude might very properly be expected to drive off some of our membership. Our House of Delegates, and I now believe very wisely, determined that this extra money should be raised by a special assessment so that no implication remained suggesting that dues for subsequent years would be any different than they had been before. Our House of Delegates, also I believe wisely, qualified this assessment by the specific charge that it stand as a permanent lien against a member so that anyone resigning to avoid it would have to meet it before he could be readmitted to membership at a later date.

As I have indicated before, it was conservatively estimated that we might lose, at least for a temporary period, some two or three hundred of our members. To date we have received three resignations. While in the early months after the levying of this special assessment there was something of a general feeling of protest among the membership, it was neither organized nor long sustained. As the several phases of the special program began taking form the profession gradually came to understand what was being undertaken and the meticulous way in which it was being carried out. With that understanding, all protest such as it was completely disappeared.

In a very simple way, this outlines for you the special program on which the profession of my State has embarked. I need not tell you that we are intensely interested in the plans and programs of the profession of other states. Neither do I need to assure you that we have determined upon a very definite course of our own. I am confident that the citizens of Wisconsin are now acutely aware of our determination to lead intelligently and thoughtfully wherever we are to go. I am confident that while the organized profession of our State maintains this attitude of honest inquiry and careful planning it will be a long lifetime before another Biemiller can again reach the pinnacle of public acclaim that he so recently held. And, finally, I confidently hope that out of this all may come something in the nature of a real contribution to American medicine.

GROUP HOSPITALIZATION IN ST. LOUIS

CARL F. VOHS, M.D., Secretary
NORTHWEST REGIONAL CONFERENCE
St. Louis, Mo.

No development in the field of medical economics, with the possible exception of sickness insurance and state medicine, has aroused more interest and discussion than has group hospitalization, or prepayment plans for hospital care.

During the recent economic depression, hospital income from endowment and voluntary contributions was decreased by about two-thirds, the charity load was increased almost four-fold, and huge

obligations growing out of capital investment or fixed costs were not met.

Under such existing conditions it was only natural that superintendents, lay boards of hospitals, and in some instances the medical profession, should seek some method whereby a major item of illness costs might be more conveniently met by the great mass of American people. The method chosen by a great many communities was the

prepayment plan known as group hospitalization. Much credit is due the little group of pioneers at Baylor University in Texas who had the courage to bring forth in the face of many obstacles an untried plan; other cities and communities capitalized on the experience of the early years of operation and have added to the stability, efficiency, and increased confidence in the plans as they are presented to the people today. There seems to be little doubt that under proper administration and organized on certain principles, group hospitalization will meet with the approval of all concerned. For many years there have been serious discussions among physicians and hospital administrators concerning the most equitable arrangement for anesthesia, clinical pathology, radiology and other special medical services in hospitals. If group hospitalization plans show a distinct tendency to place hospitals in the field of medical practice they cannot expect the support of organized medicine. Plans confining their benefits strictly to hospital facilities or to those services acceptable to the local medical society would avoid any undesirable disturbance in the field of medical practice, and would not impair the value of the plan as a method of assisting persons with limited incomes to receive good hospital care.

Realizing the importance and necessity of organized medicine's participation in group hospitalization plans, the St. Louis Medical Society through its Economics Board, took the leadership in these matters in 1934. The lay boards of a number of hospitals had already begun to lay the ground work for such plans and fully realizing the difficulties before them in enlisting the support of all the hospitals and physicians in the community readily acceded to the plans of the Economic Board.

In taking into consideration the difficulties that lie in the path of establishing group hospitalization plans, the following factors may be considered as important:

1. The hospital administrators, organizers, and physicians of a community, together with representatives of the public, must determine, first, whether a prepayment plan for hospitalization is needed in the community and upon what basis it would be practical.

2. Group hospitalization plans should not presume to provide hospital services for the indigent nor is it intended that they should. However, group hospitalization can and should aid the community and the allied health interests that are striving to provide adequate medical care for the people in an interpretive and educational manner. Group hospitalization, therefore, should be an integral unit in any medical economics plan that is set up to reach ALL income groups.

3. In their very essence, group hospitalization plans must be flexible enough to meet changing conditions and develop along lines that will be conducive to cooperation in

national and state government plans to make available medical care to all the recipients of benefits in the Social Security Program.

4. Sound procedure in the development of any hospital service plan for a community must, of course, be followed. Not only must sound business practice be of paramount importance, but the kind and standard of service to be delivered should be collateral to the best interests of the community and the high standard of ethics of the medical profession.

5. Many group hospitalization plans were inaugurated in their respective communities with the approval of their local Medical Society, while in one or two instances the medical profession had the honor of inaugurating a hospital service plan. In those instances where the plan did not receive the full cooperation of the medical profession, the reason has been obvious: the plans transcended the ethics of the American Medical Association in respect to the delivery and practice of medicine. No plan can hope to succeed in its services to the community and its members if it invites the opposition of organized medicine by the inclusion of services which are detrimental to the best interests of the patient.

6. Hospital service plans which do not fit the need of the community and that do not have the full cooperation of the medical profession, the public, and all eligible hospitals, cannot survive. In fact, such plans will not serve the best interests of the public nor will they be consistent with the high ideals and ethics of the medical profession and hospitals. Far better that such plans were never inaugurated. Fortunately, the great majority of the present hospitalization plans have started with the objective of meeting a definite social need in the community. The better plans were not placed into operation as an added means or a new method of financing hospitals—worthy as they may be. Nor do I agree with some individuals that hospital service plans should receive preferential rates from their participating member hospitals. The hospitals must be paid a fair per diem rate and this can be readily agreed upon where there is complete cooperation between civic leaders, hospital trustees, and the medical profession.

If group hospitalization plans have failed in the past in any community or if they may fail in the future, it is not too broad a statement to say that such failures will be attributable to improper organization, untrained personnel, and most probably, high pressure salesmanship on the part of a selfish promoter. The better plans have already proven that group hospital service organizations can be operated with an administrative cost as low as 8 per cent after the second year.

Officially or unofficially, both the American Medical Association and the American Hospital Association can say quite definitely which plans are ethical and which are unethical. The recent formation of a special section under the American Hospital Association for Hospital Service Plans is unquestionably a forward step. It seems to me that it not only offers a splendid opportunity for the exchange of ideas, but it also provides an opportunity to gather comparable statistics. Statistics in comparison cannot be conclusive, nor can they be logical if these statistics cover too wide a field by accepting and including experiences of single hospital plans, college student service, or mutual benefit association figures. Just because the common denominator of various contributory insurance schemes is the "prepayment idea," there is little basis for believing them to be identical, either in operation or in results. In all probability the Group Hospital Service Section, under the guidance of the American Hospital Association, will develop sound procedure in proper order and a code of ethics which will have the approbation of not only the American Hospital Association but also the American Medical Association.

Authorities on Hospital Service Plans have more or less based their conclusion for morbidity incidence and the consequent establishment of premium costs on the fact that 10 per cent of their members will be hospitalized for an average stay of ten days; in other words, allowing one patient day per member per year. Most plans have found this adequate; however, many of the executives of the larger plans are striving to set up very definite safeguards for such contingencies as catastrophes and epidemics.

Adequate reserves are necessary, of course, but the responsibility of serving members of Hospital Service Plans should not be shunted completely and wholly on the shoulders of the plans themselves. It has never been the belief that such plans were to assume the position of private insurance companies in respect to the communities' hospitals. The hospitals must face with equal responsibility the provision of good hospitalization if some unfortunate community be visited with a catastrophe or epidemic. However, with the establishment of a reasonable reserve, there can follow greater services to the members.

The plans which have been operated successfully for a period of three or four years or more have shown that they have reserves in excess of that major weakness in those plans which are started without community backing. They cannot possibly be expected to start from "scratch" and pay organization expenses, perform community educational work, and build an adequate reserve right from the very beginning. It is my understanding that the Section on Hospital Service Plans of the American Hospital Association is at this time considering measures which will provide for this and other contingencies. It may be that the principle of re-insurance might be utilized just as is prac-

ticed today by the leading insurance companies of our country.

What has just been said should not be misinterpreted to mean that plans can ignore the necessity of having reserves. The reference is mainly to huge reserves which might be used primarily to meet community disasters. The community through the hospitals is equally responsible. The establishment of some reserve is needed to cope with other situations which will arise as the public becomes better educated to this method of protection.

During the early periods of rapid membership growth, a low morbidity rate can be expected. However, as the membership grows older and it becomes more difficult to obtain new members in groups large enough to avoid adverse selection, an increase in the number of persons hospitalized and the costs of their hospitalization is probable. If such developments occur, those plans which have ignored the establishment of reserves will be in a particularly hazardous position.

After providing an adequate reserve, the first benefit to be considered should be the extension of membership to the dependents of the subscriber. Several plans in the country today have made tremendous strides, and they are serving their community in a manner that is the envy of business executives and of outstanding insurance authorities. In St. Louis, we added the family plan during the month of last December. After the establishment of benefits for the family, a reasonable amount of the accumulated surplus can then be considered for the extension of further benefits. It seems reasonable to believe that some day a practical method will be devised to provide for nursing service and for pharmaceutical products of a limited nature. It probably is not visionary at this date to prophesy that hospital service plans and their participating member hospitals will eventually establish convalescent homes for their members, in addition to providing accommodations for isolation cases.

The medical profession in St. Louis has little trepidation concerning hospital service plans which do not violate the ethics and principles of American medicine. Instead, it welcomes this adjunct of service to its patients. Hospital service plans reduce for the patient any financial worry which so frequently retards recovery. The doctor can more readily refer the patient to the hospital, for after all, it is in our great scientific hospitals that the best care can be given the afflicted. The doctor can with more facility see his patients and in this way reduce the costs of medical attention. Nor is it too crass to take cognizance of the fact that the patient without a hospital bill to pay can more readily meet the expense of medical fees. This might even be carried further; it is an established fact that too many patients today are turning to self administration of questionable nostrums; too many are not calling their family practitioner for competent medical advice and the

reason is that they still owe for the last baby or last operation and are ashamed to admit to the doctor that they have been able to budget for many things but not for their health. Cooperation and fair play is expected of the physician. Because a patient has availed himself of group hospitalization protection, it should not be a signal to charge fees which are not commensurate with the ability to pay. Group hospitalization is not the panacea for all the patients' ills and shortcomings, but in time its educational and interpretive service may prove to be of even greater help to humanity than its actual care of members.

Group hospitalization has had an auspicious start in St. Louis, and the medical profession, together with the community in general, expects and hopes to receive much good in the future but, unfortunately, there are and will be limitations. There will still have to be a Medical Economics Plan which will increase the efficiency of the delivery of medical, dental, and hospital care for all people, regardless of their income status.

It may be some time before group hospital service plans can safely work out a method to enroll practically all those desiring such protection. It is obvious that administrative costs and adverse selection are major reasons which preclude the extension of this service to individuals, and not just through groups at their place of employment. The Medical Societies throughout our land have been experimenting for years to develop a thoroughly ethical and sound method whereby those in the limited and low income bracket might be better served in matters relating to health.

Hospital Service Plans can and might be an important factor in aiding the development of plans to provide medical and dental care which will not violate nor disturb the relationship between doctor and patient. It is an admitted fact that hospital service plans, as a rule, do not reach those of very low income, and certainly not the indigent.

Group hospitalization might eventually be part of a well co-ordinated program which would arrange for the payment of medical, dental, and hospital bills on a post-payment basis for those lacking membership in the service plan. In communities where there are a number of hospitals supported by a local community chest, it will likewise prove practical to coordinate their admitting service. A number of large cities have already placed this plan in effect and with very satisfactory results. For this to be brought about, it will call for real community cooperation; the natural selfishness of individual institutions must be subjugated to the best interest of the community at large. The formation of Community Chests was a forward step in conserving the resources for community help which were contributed by thousands of wage earners to aid those less fortunate than themselves. Therefore, a coordination of existing resources is far more desirable and unquestionably more practical, than the establishment of any new and un-

worked scheme for the provision of better medical services and better hospital care to our people.

The bibliography of history is frequently referred to by relating to—The Ice Age, Stone Age, Steel Age, etc., and I believe the last twenty years might be classified as the Scientific Age. That brings us to the present—could it not be called one of "Social Consciousness?" The present administration of our federal government has already indicated that the next matters for pertinent consideration are the maternal and child welfare programs, as well as a determined effort by the Department of Public Health to eradicate the scourge of syphilis. All of this is most worthwhile provided too many visionaries do not attempt to give to the less fortunate a mess of porridge; pseudo-philanthropists and impractical bureaucrats who are supported by contributions of taxpayers but still feel that they have the God-given right to be wasteful, not only with other people's money but with other people's services as well.

There can be and will be coordinated community plans for the conservation of the resources contributed by its people for the delivery of good and not just adequate medical, dental, and hospital care.

Since the inauguration of Group Hospital Service, as the second unit of the Medical Economics Security Administration the latter part of April, 1936, we have hospitalized more than 1,400 members in the twenty-one participating institutions. The hospital bills of these members total more than \$50,000, with the patients themselves paying the hospitals for such service as anesthesia, roentgenology, physiotherapy, pathology, etc., a total of \$17,541.95. It is of interest to note that the majority of the hospitals receive a per diem income of between \$7.20 and \$9.53 for the care of Group Hospital Service members.

Forty-five per cent of the patients hospitalized choose private room accommodations and take advantage of the hypothetical allowance that Group Hospital Service grants its members toward the cost of any private room chosen. This is not the amount that Group Hospital Service pays as the arrangement with the hospital is that they receive a flat rate of \$6.00 per day for all cases and under all circumstances. It is worthy of notice that the Board of Trustees of Group Hospital Service has not received any complaint from either a patient, physician or hospital in its first eighteen months of operation. Furthermore, the Trustees have rigidly adhered to that provision of the By-Laws which excludes employees of firms from enrolling for benefits of Group Hospital Service because free choice of physician and hospital is limited under their employees' benefit plan.

The St. Louis plan has been given national recognition as being one of the most ethical hospital service plans in operation.

The precocious child of organized medicine and dentistry and the hospitals has grown considerably.

(Continued on page 218)

Under the Capitol Dome

1938 INDIANA ROAD MAPS NOW READY FOR DISTRIBUTION

Officials of the Indiana state highway commission have announced that the new 1938 road maps are ready for distribution. First copies were distributed to automobile license branches throughout the state and to state highway commission district and sub-district offices. The new map will be pocket-size and will contain a large number of new features not contained in the 1937 map. It is being distributed free of charge to any motorist applying for it.

STATE BOARD EXAMINATIONS

The regular examination of applicants for licenses to practice medicine in Indiana will be conducted by the State Board of Medical Registration and Examination, June 21 to 23, inclusive, Miss Ruth V. Kirk, executive secretary, announced. The examinations will be conducted on the eighth floor of the Claypool Hotel in Indianapolis. Definite figures on the number to take the examination were not available, but it was understood a large class would take the tests.

Announcement also was made that the state board has adopted new regulations governing the examination and licensure of graduates from medical schools outside the United States and its possessions.

REGULATIONS FOR RESTAURANTS

The Indiana State Board of Health has adopted regulations for inspection, grading and placarding restaurants and similar establishments. Effective April 1, the regulation will be enforced by the state in five health districts, principally in southern Indiana.

Dr. Verne K. Harvey, secretary of the Health Board, said that it is the hope of the department that cities in other districts will adopt ordinances providing for similar inspection and placarding, and that the state department will cooperate in every possible way with cities taking such action.

Purposes of the regulation are: to secure sanitary maintenance of all public eating establishments; to provide, for public information, a certified grade of each public eating establishment based on the extent of compliance with the rules and regulations, and to reward establishments in accordance with the precautions taken for proper handling of food and maintenance of equipment and fixtures.

The drafted rules and regulations resulted from joint effort of the state board of health and officers of the Indiana State Restaurant Association. Restaurants will be graded "A", "B", or "C", according to merit.

Dr. Harvey said that the regulation is drawn up so that it will be readily adaptable to local governmental needs. No attempt will be made by the state to require the public display of grades in any section of the state until full and reliable inspection service has been provided, he said.

NEW DEPARTMENT OF INDUSTRIAL HYGIENE

Establishment of an industrial hygiene department in the state department of public health has been announced by Dr. Verne K. Harvey, director of the state's health activities.

Dr. Louis W. Spoylar has been appointed chief of the new department, and an industrial engineer will be appointed later, Dr. Harvey said.

First activity of the industrial hygiene department will be a general survey of industries of the state and a classification of them as to specific type of employment and the number of persons engaged. Afterwards one health hazardous industry will be selected for detailed study and survey as to the actual amount of industrial diseases. Recommendations will be made as a result of the second study.

Operation of the industrial hygiene department will be carried on in cooperation with industry and labor and with the state labor division, Dr. Harvey said. It is expected to have the department in operation by July 1.

Twenty-five states have established industrial hygiene units. Indiana ranks ninth in the United States in the number of persons employed in health hazardous industries.

PAROLE DENIED PHYSICIAN'S ATTACKER

The Indiana State Clemency Commission has denied a parole to Robert Peterson who is serving a twenty-year sentence in the state prison for robbery of a South Bend physician. Record of the case showed that the physician was called to the Peterson home at night by telephone, the call having been made by Mrs. Peterson who said that a baby there was very ill. On his arrival at the house the doctor was assaulted by Peterson and forced to turn over the money on his person. Peterson was sentenced in the St. Joseph County Superior Court March 9, 1934.

SPECIAL LEGISLATIVE COMMITTEE HEARING ON WORKMEN'S COMPENSATION ACT

A committee appointed by the Governor to investigate the feasibility of the State of Indiana taking over and operating workmens' compensation insurance held a preliminary meeting March 11, 1938, at the State House in Indianapolis. This is a matter of considerable interest to members of the Indiana State Medical Association and future meetings of the committee will be reported upon. The policies of the Association in regard to this probably will have to be formulated at the next meeting of the House of Delegates.

Deaths



Frank H. Jett

Frank H. Jett, M.D., of Terre Haute, widely known physician and surgeon, died at his home, March thirteenth, after a long illness. Dr. Jett was sixty-four years old.

After completing his early schooling, Dr. Jett taught chemistry in the college at Ada, Ohio, and studied dentistry while there. Later he was appointed chemist for a hospital in Washington, D. C., and while there worked his way through George Washington University School of Medicine from which he graduated in 1905. Soon after that he established his office in Terre Haute where he has since practiced. He studied in European centers in 1914 and again in 1927.

Dr. Jett was a member of the Vigo County Medical Society, and the Indiana State Medical Association and was a Fellow of the American Medical Association and of the American College of Surgeons.

Paul E. Bowers, M.D., native of Indianapolis and former superintendent of the Indiana State Hospital for the Criminal Insane at Michigan City, died at his home in Los Angeles, February sixteenth. Dr. Bowers was fifty-one years old. He was a graduate of the State College of P. and S. in Indianapolis and practiced general medicine in Indianapolis before entering institutional work.

Sollis Runnels, M.D., of Indianapolis, died March thirteenth, aged eighty-three years. Dr. Runnels was active in his profession until the time of his death. He served in the volunteer medical corps

during the World War and had been active for many years in civic affairs. He had practiced medicine in Indianapolis for nearly fifty years. He graduated from the Chicago Homeopathic Medical College in 1887.

Leslie C. Sammons, M.D., of Shelbyville, president of the Indiana State Board of Medical Registration and Examination, died at his home, February twenty-fifth, aged sixty-one years. A resident of Shelbyville since 1899, Dr. Sammons had served the city as health officer and also had served as health officer for Shelby County. He was a past president of the Shelby County Medical Society and of the Indiana organization of homeopathic physicians. Dr. Sammons was a veteran of the World War during which he served in the medical corps, and was a member of the Shelby County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Homeopathic Medical College of Missouri, St. Louis, in 1899.

J. P. Heath, M.D., retired physician of Fishers, died March second. He had practiced medicine in the community of Fishers for nearly sixty years.

Ernest Don Smith, M.D., of Fort Wayne, died February twenty-sixth, at the home of his son in Springfield, Illinois. Dr. Smith had been ill for several weeks. He had practiced medicine in Fort Wayne since 1904, and was serving as president of the Fort Wayne (Allen County) Medical Society at the time of his death. Dr. Smith graduated from the Fort Wayne College of Medicine in 1896 and was a member of the Indiana State Medical Association and the American Medical Association.

Edward C. English, M.D., of Rensselaer, died February seventeenth from pneumonia. Dr. English was seventy-seven years old. He had practiced in Rensselaer since 1896 and had been a member of the Jasper-Newton County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from Rush Medical College, University of Chicago, in 1895.

Richard A. Poole, M.D., of Indianapolis, died March third, aged fifty-eight years. Dr. Poole served as superintendent of the Indianapolis City Hospital in 1922 and had served two terms as Marion county coroner, from 1915 to 1919. He graduated from the Medical College of Indiana, Indianapolis, in 1905, and had spent his entire life in Indianapolis.

News Notes

Articles of incorporation of the Vanderburgh County Medical Society have been filed.

Drs. Paul Wilson and Fred Terfingher of Logansport have moved to newly remodeled offices at 422 North Street.

Dr. Robert K. Myers of Chili has returned to France to complete an internship in the American hospital in Paris.

Dr. W. P. Alexander of Gary celebrated his eighty-first birthday, February twentieth. Dr. Alexander started his practice in Gary in 1907.

Dr. Edgar F. Kiser of Indianapolis spoke on "Art in Medicine" at the John Herron Art Museum, February twentieth.

Dr. James L. Lamey of Anderson has opened an office in the Citizens Bank building for the practice of obstetrics and gynecology.

Miss Gladys M. Anthony of Indianapolis and Dr. Lee J. Maris of Attica were married March sixth, in Indianapolis.

Dr. Patrick H. Weeks, physician for the Indiana State Prison for eighteen years, has published a book entitled "The Big House of Mystery."

Dr. M. H. Flinter, formerly of Monticello, now in the Federal service, has been transferred from his post in California to the Indian Hospital, Cass Lake, Minnesota.

The marriage of Miss Margaret Ellen Shipman of Monroe, Michigan, and Dr. W. Frank Tranter of Franklin, Indiana, which took place September 5, 1936, was announced recently.

Dr. M. O. Robertson has moved from Medora to Bedford where he will continue his practice. Dr. Robertson had practiced in Bedford before going to Medora.

Miss Annabelle Nafe of Kewanna and Dr. Kenneth L. Shaffer of Corydon were married February twentieth in Lafayette. Dr. and Mrs. Shaffer are now at home in Vincennes, Indiana.

Dr. F. S. Caprio of Marion was guest speaker for the Physicians' Study Club, February eighteenth, when he reviewed his own book, "Why Grow Old?"

Dr. Homer Woolery of Bloomington has spent the winter in Hawaii, California, and Texas, and is now in Miami, Florida, with Mrs. Woolery. Dr. and Mrs. Woolery expect to return home in April.

The Northern Tri-State Medical Association will meet at the Elks Temple in Findlay, Ohio, for its sixty-fifth annual meeting, April 12th. Complete program for the meeting is published on page 153 of the March JOURNAL.

Dr. E. Lee Burrous who has practiced at Bremen for the past ten years has moved to Peru to continue his practice. Dr. Burrous is specializing in diseases of the eye, ear, nose and throat. He recently completed postgraduate work in Vienna.

A campaign to raise \$25,000 for the work of the Indiana Anti-syphilis Committee is under way. Voluntary contributions of more than a thousand dollars had been received at the beginning of the campaign.

Dr. Edward H. Kruse has been made president of the Fort Wayne Medical Society to complete the term of the late Dr. E. D. Smith. Dr. Lynn W. Elston was chosen vice-president to succeed Dr. Kruse.

Dr. John M. Cunningham of Indianapolis spoke on "The Relationship of a Nurse to her Patient" at the monthly educational program of the Nursing Service Bureau, central district, February twenty-third.

Dr. Harry G. Erwin of Lagrange has sold his hospital equipment to the county for the county hospital which will be equipped to care for both medical and surgical cases. Dr. Erwin will continue his practice in Lagrange but will not operate a hospital.

The American Association for the Study of Goiter has announced that the third international goiter conference will be held in Washington, D. C., September 12 to 14, 1938. Physicians desiring further information concerning the conference may communicate with the officers of the American Association for the Study of Goiter, or the chairman of the program committee, Dr. Allen Graham, 2020 East 93d Street, Cleveland, Ohio.

Dr. A. M. Mitchell, chairman of the Secretaries' Conference Committee for 1938, has named the following members to serve on his committee: R. L. Hane, Fort Wayne; P. E. Yunker, Evansville; John Palm, Brazil; J. F. Riley, Vincennes, and Durward Paris, Kokomo.

Miss Judy Edwards of Bedford and Dr. Ralph Hippensteel of North Manchester were married March third in Indianapolis. Dr. and Mrs. Hippensteel are making their home in Fremont where Dr. Hippensteel has established his practice.

The Chicago Tumor Institute opened March 21 at 21 West Elm Street, Chicago. The institute will offer consultation service to physicians and will conduct research and offer training to physicians who may wish to qualify as specialists in the study and treatment of cancer patients.

The American Association on Mental Deficiency is to hold its sixty-second annual meeting in Richmond, Virginia, April 20 to 23, inclusive. A program may be obtained by writing to the president of the association, Dr. Harry C. Storrs, Letchworth Village, Thiells, New York.

Dr. W. H. Crays has been appointed to the staff of the Indiana State Sanatorium at Rockville to fill the position left vacant by the resignation of Dr. W. A. Foreman who has gone to Brookville to engage in private practice. Dr. Crays has been employed in the U. S. Public Health Service in West Virginia for the past year.

Dr. R. A. Vonderlehr of Washington, D. C., will address a public mass meeting at the Shrine auditorium in Fort Wayne, May nineteenth. The League Against Venereal Diseases in Fort Wayne has grown from an original group of 250 members to more than 8,000 members.

Dr. Joseph Caton has been appointed assistant medical director at the University of Notre Dame. Dr. Caton is a recent graduate and completed internships in St. Louis hospitals. In addition to his duties as assistant to Dr. J. E. McMeel, university medical director, Dr. Caton will conduct a general practice in South Bend.

Dr. William S. Resoner of Swayzee has completed fifty years in the practice of medicine in his

community. After eleven years of service at Point Isabel, Dr. Resoner spent three years in Wabash county and located at Swayzee in 1903 where he has practiced continuously since. Recently he took a trip to Florida—his longest vacation in fifty years.

Dr. A. William Lescohier was elected president of Parke, Davis & Company, and Norman H. F. McLeod was made chairman of the finance committee at a meeting of the company's Board of Directors held in Detroit, March 1st. Both men have been actively connected with the company for about thirty years. Dr. Lescohier succeeds Oscar W. Smith who died February 7, this year, and who had been president of the company for sixteen years.

The annual post-graduate course in pediatrics sponsored by the American Academy of Pediatrics, the University of Michigan, Wayne University, and the Michigan State Medical Society will be held at the Henry Ford Hospital, the Children's Hospital of Michigan, and the Herman Kiefer Hospital in Detroit, April 18, 19, and 20. Members of the Indiana State Medical Association will be welcome to attend the sessions, and a complete program may be obtained by addressing Dr. Edgar E. Martmer, 1553 Woodward Avenue, Detroit.

ELEVENTH DISTRICT MEETING

The Eleventh Indiana Councilor District Medical Association will hold a meeting in Logansport, May eighteenth. The tentative program includes a paper by Dr. R. C. Ottinger of Indianapolis on "Pitfalls in the Diagnosis of Acute Abdominal Conditions," a paper by Dr. G. F. Kempf of Indianapolis on "Uses and Abuses of Sulfanilamide," and a paper by Dr. S. A. Malouf of Peru. The complete program will be published in the May JOURNAL.

A new Registry of the Diplomates of the American Board of Radiology includes the names of the following Indiana physicians: W. R. Cleveland and Keith T. Meyer, Evansville; Juan Rodriguez, E. M. VanBuskirk, and Metodi Velkoff, Fort Wayne; C. W. Rauschenbach, Hammond; R. C. Beeler, James N. Collins, Helen L. Crawford, Ralph L. Lochry, H. C. Ochsner, Lester A. Smith, Chester A. Stayton, Clifford C. Taylor and Cecil S. Wright, Indianapolis; D. C. McClelland and H. G. Sichler, Lafayette; Paul D. Moore, Muncie; S. A. Clark, L. G. Ericksen and L. F. Fisher, South Bend; Robert E. Downing, L. A. Malone, H. J. Pierce and J. V. Prouty, Terre Haute.

ANNUAL MEETING OF INDIANA TUBERCULOSIS ASSOCIATION

Two sessions which should be of interest to the medical profession will be held on April 21 at the Lincoln Hotel, Indianapolis, in connection with the annual joint session of the Indiana Tuberculosis Association and the Indiana Trudeau Society. The first session will be held at 9:30 a. m. with Dr. C. J. McIntyre, Indianapolis, president of the Indiana Tuberculosis Association, presiding. The program follows:

Pneumoconiosis—Philip H. Becker, M. D., Lake County Tuberculosis Sanatorium, Crown Point.

Laboratory Diagnosis of Tuberculosis—Robert A. Staff, M. D., Superintendent, Smith-Esteb Memorial Hospital, Richmond.

The Treatment of Childhood Tuberculosis—Paul D. Crimm, M. D., Superintendent, Boehne Tuberculosis Hospital, Evansville.

The afternoon session, which will convene at 2:00 p. m., will be in charge of Dr. J. W. Strayer, Lafayette, president of the Trudeau Society, and will be made up as follows:

Extra Pulmonary Tuberculosis—Donald W. Brodie, M. D., Sunnyside Sanatorium, Indianapolis.

Specular Examination—Mason B. Light, M. D., Indianapolis.

Malignancy of the Lung—J. V. Pace, M. D., Superintendent State Sanatorium, Rockville.

Silicosis—H. L. Murdock, M. D., Ft. Wayne.

Discussions will follow each paper or demonstration and the medical profession is cordially invited to participate. A complete program will be sent on request by the Indiana Tuberculosis Association, 1219 Security Trust Building, Indianapolis.

On the evening of April 20, at 8:00 p. m., a general session will be held at which Dr. C. C. Applewhite, surgeon of the United States Public Health Service, will discuss "The Place of Tuberculosis Control in a Whole Time Health Program," and Dr. R. G. Bloch, University of Chicago, Department of Medicine, will present a paper on "The Approach to the Tuberculosis Problem."

LIVELY INTEREST IN PHYSICIANS' TOUR OF AMERICA BY DELUXE SPECIAL TRAINS

ENROUTE TO THE A.M.A. CONVENTION IN SAN FRANCISCO

Physicians and their families are evincing a very keen interest in the arrangements made by the American Express Travel Service to see America enroute to and returning from the San Francisco Convention.

Many physicians, completely immersed in their practices, have hesitated to take such an extended vacation heretofore but now the fact of the A. M. A. Convention and the attractiveness and economical features of this travel program have brought such a trip within the realm of desirable possibilities.

Picture the beauty and relaxation of such scenes as the Indian Detour in New Mexico, the Grand

Canyon of Arizona, Los Angeles and the beauties of southern California, Santa Catalina Island, the famous Columbia River Highway in Oregon, Seattle, Washington, Victoria, Vancouver, Lake Louise and Banff in the Canadian Rockies, Yellowstone National Park, Colorado Springs and many others.

The all-inclusive price is unusually low because of the cooperation of so many important medical societies. An attractive folder, describing these travel arrangements, may be obtained through the transportation agents, The American Express Travel Service, 180 N. Michigan Avenue, Chicago, Illinois.

Indiana University News Notes

Many departments of the Indiana University School of Medicine in Indianapolis are moving this month into the new Clinical Building, recently completed at the I. U. Medical Center. The building, according to the I. U. medical school officials, is designed as a "nerve center" for its surrounding campus units, the Robert W. Long general hospital; the William H. Coleman Hospital for Women; the Ball Residence and Training School for Nurses; and the James Whitcomb Riley Hospital for Children. Administrative offices for all these hospitals will be housed in the new Clinical Building.

The new Clinical Building on the I. U. campus in Indianapolis was financed by PWA funds, the cost of which, including equipment, was over \$600,000. It is of brick and contains six stories.

"Broad extension of facilities for teaching students of medicine; greatly increased patient capacity; a speeding up of all clinical and technical services and most important, greater economy of operation, have been the ends sought by the University and its medical school in this splendid addition to the school," Dr. W. D. Gatch, dean of the I. U. medical school, said concerning the new building. "The state will benefit largely throughout the years as we put our new facilities to good use."

One of the most important of the departments to be located in the new building is an enlarged cancer, radium, and x-ray clinic, with all the latest highly technical devices designed to arrest or treat the disease. A large part of one floor of the building will house this equipment, and the new clinic will give to the school and to the patients of the hospitals much greater facilities than have been previously available.

"This department alone is worth to the people

of Indiana far more than the dollar and cents cost of the whole building, in the alleviation of suffering and pain," Dr. Gatch said. Dr. Gatch pointed out that the moving of numerous departments from other buildings into the clinical building, will result in much more efficient handling of patients, greater economy and availability of badly needed space in other I. U. buildings.

Prior to the completion of the Clinical building, the Medical Center operated three separate admitting rooms, three separate medical history rooms, three sterilizing rooms and about twenty separate out-patient clinics. All of these activities now will be concentrated in the one building.

The six surgery rooms on the fifth floor are a center of much interest to physicians because of their modern construction. As in all features of the hospital, facilities for instruction to the doctors and nurses of the future is provided in the surgery rooms.

CHANGES IN TEACHING STAFF

Division of the department of bacteriology and pathology at the Indiana University Medical Center in Indianapolis into a department of bacteriology and public health and a department of pathology has been authorized by the I. U. board of trustees. Dr. Thurman B. Rice, who has been serving as chairman of the original department, becomes chairman of the new department of bacteriology and public health. Dr. Frank Forry is the new chairman of the department of pathology.

The latter department has two divisions, one of general pathology with Dr. Forry as chairman and a division of clinical pathology with Dr. Clyde G. Culbertson as chairman.

Many faculty promotions and changes in titles affecting the medical center were approved by the trustees. Faculty representatives affected and their new titles are as follows:

Dr. Wemple Dodds, lecturer in bacteriology; James M. Hundley, Summittville, student assistant in bacteriology; Dr. F. W. Taylor, assistant professor of pathology and assistant in plastic surgery; Dr. Amos C. Michael, assistant professor of general pathology; Dr. Harold C. Thornton, associate in general pathology; Ray D. Miller, Indianapolis, student assistant in pathology and bacteriology; Robert H. Maschmeyer, Indianapolis, student assistant in pathology.

Dr. Clyde G. Culbertson, assistant professor of clinical pathology and chairman; Dr. J. Lynn Arbogast, assistant in clinical pathology; Dr. A. W. Ratcliffe, assistant in clinical pathology; Dr. Ko Kuel Chen, professor of pharmacology; Dr. Harold R. Hulpieu, associate professor of pharmacology and bio-chemistry; Dr. Hugh E. Martin, instructor in pharmacology; Leslie M. Baker, Aurora, student assistant in bio-chemistry; John H. Kitchell, Walton, student assistant in pharmacology.

Dr. E. B. Earp, Dr. Paul J. Foutz, Dr. Roy A. Geider, Dr. Kenneth G. Kohlstaedt, Dr. I. J. Kwitney, Dr. John H. Greist, associates in medicine; Dr. James S. Browning, assistant in medicine; Dr. Ralph U. Leser, assistant in medicine; Dr. Harold C. Ochsner, assistant in radiology; Dr. Paul Furgason, assistant in gynecology; Dr. Russell C. Rees, assistant in gynecology; Dr. Herbert L. Sedam, assistant in gynecology; Dr. Herbert Call, associate in pediatrics; Dr. Wendell E. Brown, Dr. Samuel S. Caplin, Dr. Andrew F. Connoy, Dr. Albert M. Donato, and Dr. Clarence J. Haslinger, assistants in pediatrics.

Dr. Frank F. Hutchings, professor emeritus of mental and nervous diseases; Dr. Max A. Bahr, professor and chairman of the department of mental and nervous diseases; Dr. Louis P. Harshman, lecturer in mental and nervous diseases; Dr. William J. Dieter, assistant in mental and nervous diseases; Dr. Exie Welsch, assistant in mental and nervous diseases; Dr. Richard C. Travis, assistant in genito-urinary surgery; Dr. Cecil Eisaman, assistant in otolaryngology; Dr. Myron S. Harding, associate in ophthalmology; Dr. Herbert L. Egbert, research assistant in the division of research; Dr. William F. Molt, associate in bronchoscopy and oesophagoscopy.

Dr. Edgar F. Kiser, clinical professor of cardiovascular renal diseases; Dr. Robert M. Moore, clinical professor of cardiovascular renal diseases; Dr. Cyrus J. Clark, associate professor of cardiovascular renal diseases; Dr. Philip B. Reed, assistant in the department of mental and nervous diseases; Dr. Robert L. Glass, assistant professor in surgery and Huesmann fellow in neurological surgery.

The official research staff was named as follows: General Director Trusler, Chief of Research Laboratories Culbertson, Huesmann Fellow in Neurological Surgery Glass, and Assistant in Research Egbert.

The name of the department of rhinology, otology and laryngology was changed to the department of otolaryngology.

In seaweed and the peels of lemon, orange and grapefruit, the Indiana University School of Medicine has discovered a new remedy for cholera infantum, writes Howard Blakeslee, science editor of the Associated Press. The report made by Mr. Blakeslee reads as follows: "The medicine is a mixture of agar-agar and pectin. The agar comes from Japanese seaweed; pectin from the peels. The two promise the virtual finish of cholera infantum, once dreaded infant killer, curbed in recent years by better diets, but still taking lives in July, August and September under the newer name, diarrhea of infants.

"The seaweed-citrus fruit discovery ends a long medical trail that came out of folklore, hundreds of years ago. In German Pomerania the folklore

told the health of the apple-eater. In Devonshire, England it was a rhyme.

"'Ate an apel avore gwain to bed,

"'Makes the doctor beg his bread.'

"Today's version—"An apple a day keeps the doctor away."

"The adage was applied practically in Germany with a discovery that scrapings of apples were good for infant troubles. These scrapings were found three years ago, at Indiana University school of medicine, to prevent or cure nearly all cases of infant diarrhea.

"But there were difficulties. The ripe apple season came a little late. The Indiana doctors reported that excessive nursing care was involved. Parents were prejudiced against raw fruit.

"A solution was sought in chemistry. It was probable the curing quality in apples was a chemical that could be had regardless of seasons, and perhaps from many sources. Dr. Matthew Winters and Dr. Charles A. Tompkins undertook the search.

"They found that Gunther Malyoth, G. Ganconi, F. Grodecki and M. Schacter, reporting in German, American, Polish and French publications, had shown that the apples probably owed their effectiveness in the infant troubles to pectin and cellulose.

"To obtain these, they did not have to depend on orchards. The shelves of drug stores furnished both the year round. Agar is one form of cellulose. Commercial forms of pectin are extracted from the peels of lemons, oranges and grapefruit.

"These two commercial chemicals have worked better than the apple scrapings, the two physicians report. With their use, it is easier to get the children back on normal diet, which the medical profession recognizes as the best preventive of all for cholera infantum.

"The kids like it, too. For pectin is the main part of jelly. The remedy can be given in ice cream, jelly or as a heavy, sweet liquid."

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

MONTHLY REPORT, FEBRUARY, 1938

Diseases	Feb. 1938	Jan. 1938	Dec. 1937	Feb. 1937	Feb. 1936
Tuberculosis	148	183	126	151	116
Chickenpox	524	507	260	380	304
Measles	2435	1481	292	36	92
Scarlet Fever	780	953	666	738	1460
Smallpox	175	259	219	17	3
Typhoid Fever	3	5	8	1	13
Whooping Cough	86	121	75	209	137
Diphtheria	218	295	113	36	136
Influenza	83	109	193	819	181
Pneumonia	107	138	100	184	165
Mumps	129	27	8	85	303
Poliomyelitis	1	1	1	2	0
Meningitis	6	6	2	21	12
Trachoma	1	0	0	0	0
Silicosis	1	0	0	0	0
Amebic Dysentery	1	0	0	0	0
Tularemia	2	6	28	0	0
Botulism	4	0	0	0	0

Societies — Institutions

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

February 27, 1938.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

The monthly statements of Receipts and Expenditures for January for the Association committees and THE JOURNAL were approved.

Reports of the Budget for January for the Association committees and THE JOURNAL were made.

Membership Report

Number of members on Feb. 25, 1938	2511
Number of members on Feb. 25, 1937	2363
Gain over last year	148
Number of members Dec. 31, 1937	2980

Treasurer's Office

Upon the motion of Dr. Austin, seconded by Dr. McCaskey, recommendations in regard to salaries of the headquarters office force, made by the Budget Committee as a result of the action of the Council at the midwinter meeting, were approved by the Executive Committee, to begin January 1, 1938.

1938 Annual Session at Indianapolis

Contract with Murat Temple brought to the attention of the Committee. This was referred to the attorney of the Association for his approval.

Commercial exhibit. Report made that 27 spaces had been sold and 15 remain to be sold.

Scientific exhibit. Placement of scientific exhibit discussed by the Committee. The secretary was instructed to consult with Dr. Culbertson to check upon the placement of this exhibit.

Postgraduate

Dates for postgraduate course definitely set for the week of May 23 to 27, 1938.

Dates of district meetings listed in THE JOURNAL.

Dr. H. B. Mettel, chief of the Indiana Bureau of Maternal and Child Health, offers the cooperation of the Bureau in arranging programs. Funds are available to pay the expenses of speakers who will talk upon maternal and child health.

Report made that the Committee on Graduate Education of the State Association was meeting at the same time as the Executive Committee and that this committee had recommended that a postgraduate course be held in three sections of the state as demonstration courses.

The Executive Committee enthusiastically approved the suggestion of the Graduate Education Committee that a "Dr. Quiz" column be conducted in THE JOURNAL.

Legislative, Legal and Social Security Matters National:

Word of appreciation received from the Medical Society of the District of Columbia for the "fine cooperation offered by the Indiana State Medical Association and its county societies in sending telegrams to Washington representatives opposing the passage of the District of Columbia antivivisection bill."

Copy of letter which was sent to Indiana bankers urging the election of bankers to state legislatures brought to the attention of the Committee.

Local:

Upon the recommendation of the chairman of the Legislative Committee the Executive Committee felt that it would be a nice gesture to a friend of the profession to have representatives of the State Association and the Indianapolis Medical Society attend the testimonial dinner that is to be given for State Senator Curtis White.

Information brought to the attention of the Committee in regard to the special committee appointed by the Governor to investigate a plan whereby the State would write all compensation insurance as is done under the state compensation insurance law in Ohio. As Senator Charles Bedwell of Sullivan (Sullivan and Vigo counties) is chairman of that committee, it was suggested that information be obtained as to whether or not this committee intended to recommend not only compensation insurance but also the writing of hospital and sickness insurance by the State in Indiana.

Sickness Insurance and Socialized Medicine

George Beauchamp, professor of public speaking at Manchester College, who is ardently opposed to socialized medicine, is said to be a splendid speaker. The Committee requests the Bureau of Publicity to place Mr. Beauchamp's name on the speakers' list.

Article in THE JOURNAL by L. L. Bomberger, president of the Indiana State Bar Association, brought to the attention of the Committee.

Letter in regard to a health insurance scheme that had been proposed in Nassau county, New York, which did not have the approval of the Medical Society of the County of Nassau brought to the attention of the Committee.

Newspaper articles in regard to address against state medicine made by Representative Samuel B. Pettengill before the Chicago Dental Society received hearty commendation from the Committee. The Committee instructed the secretary to write a letter to Representative Pettengill in regard to this address and to request the editorial board to make proper comment concerning it in THE JOURNAL.

Farm Security Administration

Reports made to the Executive Committee that representatives of the Farm Security Administration had made contacts with the medical societies in Jackson, Shelby and Hendricks counties and that they are going to have a meeting with the physicians of Montgomery county at Crawfordsville on March 17. Reports are that programs based upon the principles laid down by the Executive Committee may be adopted in these counties. Each county medical society is determining this matter for itself and must make a decision without any help from the State Association.

State Board of Medical Registration and Examination

Cult survey. Questionnaires in regard to cultists have been sent to county medical society secretaries in order to gain information that may be used in the cult survey that is being carried on by the Committee to Study Cultists and Irregular Practitioners headed by Dr. H. J. Norton of Columbus.

Radioclast News. Companies selling "radioclast machines" which generate radio short waves claimed by cultists to be beneficial publish "The Radioclast News" which ballyhoos these machines. Copy of this publication was brought to the attention of the Committee. The headline of the publication states, "Radio Waves Hailed Greatest Medical Discovery Since X-Ray." The Committee felt that this should be sent to the American Medical Association for any information the A. M. A. may have in regard to these machines and this outfit.

Possibility of Federal prosecution of cult practitioners. Letter received from physician of Huntington, Indiana, suggesting that as most of these cultists use the local newspapers to advertise and as their advertisements are sent through the United States mail, perhaps they could be prosecuted through the Federal courts. Contact

has been made with the Federal district attorney's office and if a case can be worked up properly Federal authorities will bring an indictment against these cultists if enough evidence can be brought that they used the mails to defraud.

Legal Rights of Cultists. Letters telling of the legal rights of cultists under the Indiana law in answer to questions asked by Dr. Virgil Miller prepared by Dr. J. W. Bowers, secretary of the State Board of Medical Registration and Examination, and Albert Stump, attorney for the Association.

Right of a nurse to administer an anesthetic to obstetrical patients. Written opinion from Albert Stump in answer to this question asked by Dr. G. D. Rhea, secretary of the Putnam County Medical Society, brought to the attention of the Committee.

Question as to right of a dentist to take x-rays of any part of the body. It was the opinion of Albert Stump that a dentist would have the right to take x-rays of any part of the body.

Death of Dr. L. C. Sammons, president of the State Board of Medical Registration and Examination. The Executive Committee expressed its regret over the loss of Doctor Sammons.

Clyde Charles Gray cancer treatment, Cloverdale. The Committee instructed the secretary to bring this case to the attention of the State Board of Medical Registration and Examination.

Organization Matters

Complaint received that the Ripley County Medical Society is not active at the present time. This matter is being investigated by Dr. M. C. McKain, councilor of the Fourth District in which Ripley county is located.

Case of Dr. Clyde Charles Gray, Cloverdale. Report made to the Executive Committee that following the instructions of the Council a suggested letter had been prepared in regard to the Gray situation which was to be sent to Dr. G. D. Rhea, secretary of the Putnam County Medical Society.

Medical Economics

Progress being made in the formation of an inter-allied professional conference which is sponsored by Purdue University reported to the Committee. Preliminary committees have been appointed and another preliminary meeting of the conference group will be held within the next few months.

Report of health service surveys in Indiana made to the American Foundation Studies in Government.

Complaint received in regard to the medical profession of a community in southern Indiana. The Committee instructed the secretary to write that this letter would be referred to the County Medical Society if the consent of the complainant was obtained.

National Health Survey. Preliminary report of the National Health Survey upon disabling illness in the United States brought to the attention of the Committee. Comments in regard to this survey contained in *The Journal of the American Medical Association* also were noted by the Committee.

Resolution adopted by the Sedgwick County (Kansas) Medical Society in regard to fee to be charged insurance companies for making reports brought to the attention of the Committee. The Committee took no action in this matter.

Venereal Disease Control Program

Dr. Herman Baker made a report upon the Washington hearing in regard to the appropriation of funds for syphilis control legislation. He reported that the Indiana State Medical Association and the Indiana profession stood very high with the official public health authorities in Washington.

The Executive Committee authorized the headquarters office to find some method to take care of payment of the bills amounting to \$16.10, \$4.10 for stamps and \$12.00 for stenographic services necessary to make a survey of the

laboratories in the state and in writing numerous articles for THE JOURNAL, contracted by the chairman of the Syphilis Control Committee. The suggestion was made by the Committee that if these articles were published in THE JOURNAL, THE JOURNAL should stand the expense for stenographic services. The payment of \$4.10 for stamps should come out of the budget for miscellaneous committees expense.

Indigent Sick

Letter received from a doctor in northern Indiana, which complains that "There is a tendency on the part of authorities who give relief to send our surgical cases who are on relief to one of the hospitals in Indianapolis, the Robert Long Hospital or the Coleman. These are cases whose work could be done here at home quite well and do not require exceptional skill. The county apparently pays the hospital bill at Indianapolis. The operative work is done gratis. We are told by these authorities that these patients are not used as clinical material. We naturally are wondering how the surgeons in Indianapolis can afford to do this work without any charge when the cases are not being used for demonstrative purposes; also, what attitude the physicians of the state are taking toward that sort of management."

Letter from Dr. H. C. Ragsdale to Dr. Shanklin stating why he advocates socialized medicine brought to the attention of the Committee. Dr. Ragsdale's contention is that the profession might as well get behind socialized medicine as medicine is being socialized at the present time by the public and state hospitals.

Medical Care for All the People—Program of A. M. A.

Pamphlets received at headquarters office. The Executive Committee authorized the distribution of these pamphlets to the officers and councilors of the Association, district officers and presidents and secretaries of each local county medical society.

State Board of Health

Report made that in almost every case the health officers appointed under the new health officer law are physicians in good standing in their local county medical societies. However, in a few instances this has not been the case and Dr. Verne Harvey, secretary of the State Board of Health, has been forced to recheck for approval some physicians who had been named by county boards to be county health officers.

Proposed public health survey in Indiana. Report made that Dr. Harvey had told of a public health survey that is to be carried on by the United States Public Health Service and the Rockefeller Foundation under the sponsorship of the American Public Health Association in regard to public health activities in several states. He made a request for the approval of the Committee to have such a survey made in Indiana. The Committee felt that it should know more in regard to what the survey contemplates and what its purpose may be before giving its approval for such a survey to be made.

A. M. A. Meeting at San Francisco

Letter received from Cleveland inviting the American Medical Association to meet in that city in 1939.

National Emergency

Dr. Baker stated that he had become very much concerned over world events and that it seemed to him that the profession should give thought to the possibilities of an armed conflict in the near future. He said that he thought the Executive Committee should begin to think of just what steps should be taken in case a mobilization of armed forces is begun.

The Journal

Advertisement of the Fidelity Investment Association o.k'd upon the provision that this company is approved by the Insurance Department of the State of Indiana as well as by the Securities Commission of Indiana.

Request of a commercial rating association to advertise in THE JOURNAL was not approved.

The request of manufacturers of contraceptives to advertise in THE JOURNAL was not approved. The Committee once again expressed its feeling that no advertising for contraceptives should be accepted by THE JOURNAL.

The Committee approved carrying the advertisements of the Chemico Laboratories, Indianapolis, as they are now written.

Request for exchange from publishers of "Diseases of the Chest." The Committee was of the opinion that more information in regard to this journal should be obtained from men who specialize in tuberculosis work before granting this exchange.

The Committee approved the request of the American College of Surgeons for a complimentary subscription to THE JOURNAL providing the American College of Surgeons will reciprocate by sending *The Journal of Surgery, Gynecology and Obstetrics*, the official publication of the College of Surgeons, to THE JOURNAL.

Malpractice

For the first time in the history of the Executive Committee no malpractice suits were up for the consideration of the Committee.

BOOKS

BOOKS RECEIVED

A HISTORY OF WOMEN IN MEDICINE. From the Earliest Times to the beginning of the Nineteenth Century. By Kate Campbell Hurd-Mead, M.D. 569 pages, fully illustrated. Cloth. Price \$6.00. Haddam Press, 1 Ravine Avenue, Middletown, Connecticut.

BOOK REVIEWS

THE ENDOCRINES IN OBSTETRICS AND GYNECOLOGY. By Raphael Kurzrok, Ph.D., M.D., Associate in Obstetrics and Gynecology, The College of Physicians and Surgeons, Columbia University. 488 pages. Price \$7.50. The Williams & Wilkins Company, 1937.

There are few subjects on medicine and surgery that have as much changeable information as the endocrines. Obstetrics and gynecology claim an unusual amount of the total of this information. This book crowds a lot of information into its 488 pages and covers the field in these specialties.

There is so much contradictory experimental evidence that it is impossible to state views without reference to this data to justify them. It would be helpful if a summary were made at the end of each chapter giving what the author believed the best present time opinion in the face of the many reports given. The subject matter is well written and understandable. Each chapter has a bibliography indicating the huge amount of work done internationally on this subject.

The book discusses the anatomy of each gland of internal secretion and considers the chemistry and physiology of its secretion in relation to the other glands. The outstanding importance of the pituitary gland is made evident.

The last half of the book is given to specific clinical consideration—primary and secondary amenorrhea, hyperplasia of the endometrium, dysmenorrhea, the climacteric, toxemia of pregnancy, peculiar sex conditions, sterility, the male sex hormones and finally a chapter on methods of hormone assay.

There are many illustrations; those dealing with endometrial hyperplasia are especially good.

CANCER: A CHALLENGE

(Continued from page 194)

were peculiarly in the province of the physician who has the added challenge of accepting this responsibility of conveying to the public the facts about cancer and methods for its control.

It is realized that probably the best method of controlling cancer is the periodic physical examination of the apparently well individual. This presupposes a willingness on the part of all physicians to give such examinations when called for. Already intelligent laymen are reporting difficulty in some cases in securing the serious cooperation of the physician in obtaining the desired examination, the excuse being that in the absence of evident signs or symptoms, such examinations are unnecessary. While such occurrences are doubtless few in number, they are most regrettable for the impression they make upon the lay mind. Physicians should remember that in a national program of this kind, they have a responsibility to the profession as a whole that outweighs any personal feeling involved.

The profession is facing serious problems these days, problems whose solution may definitely alter the relationship between physician and patient. By full cooperation of the medical profession with the layman in this cancer educational program, a large and influential body of public opinion can be drawn to the side of the physician in his struggle to prevent the encroachment of undesirable influences into the practice of medicine.

It is hoped that as the cancer educational program develops in Indiana, the profession of this state will realize its opportunity to contribute to the control of a most serious disease, a disease responsible for ten per cent of all deaths. By its full approval and cooperation, the best interests of the public and of the profession will be served.

GROUP HOSPITALIZATION IN ST. LOUIS

(Continued from page 208)

Starting with little more than an idealistic objective, it has served Greater St. Louis effectually. Up to December 1st, the Corporation shows a net worth of more than \$31,000. With the financial stability of Group Hospital Service reasonably assured, the trustees have extended the benefits to whole families at what is considered to be the lowest cost family plan in the country. By this action, it is anticipated that Group Hospital Service will treble its enrollment within the next year and provide assistance and good health to thousands more of the limited and low income group of wage earners.

Error: A typographical error occurred in the News Notes in the March JOURNAL on page 150: The Indiana Pharmaceutical Association's new secretary is Mr. J. L. Weinland, and not Mrs. Weinland as was stated in the note.

LOCAL SOCIETY REPORTS

CASS COUNTY MEDICAL SOCIETY members held a meeting February eighteenth at the Cass County hospital, with Dr. Homer H. Wheeler of Indianapolis as guest speaker. Dr. Wheeler's subject was "The Clinical Significance of Ano-Rectal Disease."

* * *

DAVISS-MARTIN COUNTY MEDICAL SOCIETY met at the Daviess County Hospital in Washington, February twenty-second, with Dr. R. G. Moore of Vincennes as the guest speaker. Dr. Moore's subject was "Coronary Heart Disease." Dr. Meyer, chief of the Knox County Tuberculosis Sanitarium, spoke briefly of the new institution and its objectives.

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY members held a meeting at the New Hotel Regan in Lawrenceburg, February twenty-fourth. Dr. Edward King of Cincinnati, Ohio, and Mr. R. A. Swink, executive secretary of the Cincinnati Academy of Medicine, discussed "Medical Economics and the Physicians' Credit Systems." This was a dinner meeting with eighteen in attendance.

* * *

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY held a meeting in Muncie, February fifteenth. Dr. John Ferree of the Indiana State Board of Health talked on "Full-Time Local Health Officers." Attendance numbered forty. Dr. James U. Dodds of Hartford City and Dr. Charles J. Aucreman of Montpelier were accepted as members of the society.

* * *

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY held a meeting at the McFarlan Hotel, March eighth, with fifteen in attendance. The speaker was Dr. Gerald Kempf of Indianapolis whose subject was "Sulfanilamide."

* * *

FLOYD COUNTY MEDICAL SOCIETY members met at New Albany, March eleventh, for a dinner meeting. Dr. John P. Gentile of New Albany presented a report of the Northwest Regional Conference and the Indiana Secretaries' Conference.

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met at the Methodist Hospital in Fort Wayne, March first, with sixty-two in attendance. Clinical reports were presented by Drs. E. W. Rhamy, R. W. Wilkins and K. M. Beierlein. Dr. J. W. Thimlar was elected to membership. Dr. L. W. Elston was elected to the vice-presidency to take the place of Dr. E. H. Kruse who was made president upon the death of president Dr. E. D. Smith.

* * *

At the February fifteenth meeting, staff members of the St. Joseph Hospital presented the program of case reports. Sixty-nine were present at the meeting held in St. Joseph Hospital. Speakers included Drs. D. I. Schwartz, E. W. Nahrwold, E. C. Singer, N. L. Salon, C. J. Cooney, L. T. Rawles, and A. N. Ferguson.

* * *

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY held a meeting in Hillsboro, March third. This was a dinner meeting with fifteen in attendance. Dr. Edward J. Wheatley of Danville, Illinois, presented a paper on "Diagnosis of Disease of the Heart."

* * *

GIBSON COUNTY MEDICAL SOCIETY met in the Emerson Hotel at Princeton, February fourteenth. Dr. Thomas F. Reitz of Evansville presented a paper on "Acute Heart Conditions and the Electrocardiogram" before the twenty-one members. The secretary made a report upon the secretaries' conference, and the committee on the revising of schedule of fees also made a report.

GRANT COUNTY MEDICAL SOCIETY members met in Dix Hall at the Veterans Administration in Marion, January twenty-seventh. This was the January meeting of the staff of the institution and the program included papers by Dr. H. H. Botts, Dr. George W. Dean and Dr. William W. Bourke.

Members of the Grant County Medical Society met in Marion, February twenty-fourth, to discuss participation in the venereal disease clinic planned for the county.

* * *

HANCOCK COUNTY MEDICAL SOCIETY members held their regular monthly meeting at the Columbia Hotel in Greenfield, March twenty-first. Dr. Martin L. Fischer, of Cincinnati, talked on "Physiological Principles in the Treatment of Heart Disease."

* * *

HENRY COUNTY MEDICAL SOCIETY members met at Newcastle, February seventeenth, to hear Dr. George S. Bond of Indianapolis present a paper on "Electrocardiography." Twenty-five members and two guests were present. Dr. Bond demonstrated a new portable electrocardiograph.

* * *

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY members met at the Indianapolis Athletic Club, February twenty-second, to hear a symposium on gynecology presented by Dr. Ross C. Ottinger who talked on "Abnormal Uterine Bleeding;" Dr. Dudley Pfaff who talked about "Gonorrhea;" Dr. J. William Hofmann whose subject was "Anomalies of Female Genitals," and Dr. Carl Habich who discussed "Ovarian Hormones."

At the March first meeting, a panel discussion on "Fetal and Neonatal Loss" was conducted by Dr. C. O. McCormick. Speakers included Drs. A. S. Johnson, F. J. Hudson, D. L. Smith, H. F. Beckman, G. B. Jackson, J. F. Kelly, G. W. Gustafson, J. W. Hawk, H. F. Call, J. E. Dalton, and H. B. Mettel.

The March fifteenth meeting included papers by Drs. Herman G. Morgan, A. E. Hubbard, and W. D. Gatch, whose subjects were "Public Health Aspects of Tuberculosis," "Significance of Mantoux Test in Tuberculosis Case Finding Program," and "Surgical Aspects of Tuberculosis."

* * *

JASPER-NEWTON COUNTY MEDICAL SOCIETY members held a meeting at Kentland in the Presbyterian Church, February twenty-fourth, with Dr. O. E. Glick as host. Dr. George S. Bond of Indianapolis talked on "Cardiac Diseases of Children." Attendance numbered eighteen.

* * *

JAY COUNTY MEDICAL SOCIETY held its March meeting, March fourth, at the Portland Country Club. Dr. Karl C. Eberly of Fort Wayne was the principal speaker and he presented and discussed a two-reel moving picture on "Nature, Prevention and Treatment of Syphilis." Interested laymen were welcomed at the meeting.

* * *

KNOX COUNTY MEDICAL SOCIETY members met at the Jewel Cafe in Vincennes, March eighth. Dr. B. G. R. Williams of Greencastle talked on "The Value of a Hospital Laboratory to the Physician." Attendance numbered thirty-one. Mr. V. H. Davison of the Farm Security Administration discussed a proposed plan for medical care of their clients in Knox County and Mr. C. L. Taylor of the State Board of Health discussed a proposed milk ordinance.

* * *

LAGRANGE COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Dr. F. C. Wade, Howe.
Vice-president, Dr. Harry Erwin, LaGrange.
Secretary, Dr. W. O. Hildebrand, Topeka.

(Continued on page XXIV)

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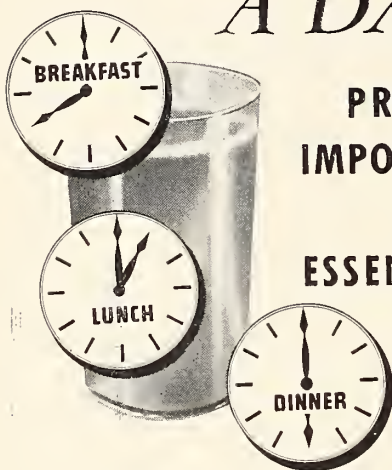
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Please send me FREE sample of Cocomalt.

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(Continued from page XXIV)

LAKE COUNTY MEDICAL SOCIETY members met at St. Margaret's Hospital, March tenth, to hear Dr. P. S. Pelouze of Philadelphia discuss “Present Day Therapeutic Problems in Gonorrhea.”

No meeting will be held on the regular April date because the District meeting will be held in Valparaiso on April eighth.

* * *

MARSHALL COUNTY MEDICAL SOCIETY members met at the Hi-Way Inn, March second, for a luncheon meeting. Dr. Merle Whitlach of Mishawaka talked on the subject of “An Operative Method of Reduction of Fractures of the Hip.” Attendance numbered fifteen.

* * *

MUNCIE ACADEMY OF MEDICINE members held a meeting at the Hotel Roberts in Muncie, March eighth. Dr. Wallace Herrell of the Mayo Clinic talked on “The Management of Ovarian Dysfunction with Special Reference to Available Diagnostic Aids.”

* * *

MONROE COUNTY MEDICAL SOCIETY members held a dinner meeting in Bloomington at the Graham Hotel, March twenty-third. Dr. E. B. Mumford of Indianapolis discussed “Treatment of Fractures of the Hip” illustrating his presentation with lantern slides.

* * *

MADISON COUNTY MEDICAL SOCIETY held a meeting February twenty-first in Anderson. Moving pictures were shown under the sponsorship of the Indiana State Board of Health, Department of Maternal and Child Welfare. Drs. V. G. McDonald and Guy Ross discussed “The Most Common Causes of Maternal Death,” and “The Most Common Causes of Death in the Newborn Child.”

* * *

MADISON COUNTY MEDICAL SOCIETY members postponed their March twenty-first meeting to March twenty-eighth so that members could attend a joint meeting in Greenfield on the twenty-first when Dr. Martin Fischer was the principal speaker. At the March twenty-eighth meeting, Dr. Fred Wishard was in charge of the program, and the speaker was Judge Ira M. Snauffer, chairman of the Indiana State Industrial Commission. Judge Snauffer's subject was “Industrial Diseases and Legislation Affecting Them, And as They Also Affect the Medical Profession.”

* * *

PARKE-VERMILLION COUNTY MEDICAL SOCIETY members met at the Vermillion County Hospital in Clinton, February sixteenth. Dr. L. H. Gilman of Indianapolis talked on “Sterilization Among the Indigent and Illiterate.” Attendance numbered thirteen. Lively discussion followed Dr. Gilman's talk.

* * *

PORTER COUNTY MEDICAL SOCIETY held a meeting February fifteenth at the Hotel Lembke in Valparaiso. Dr. Robert Cummings of Chicago was guest speaker, his subject being “The Acute Abdomen of the Child.”

* * *

RANDOLPH COUNTY MEDICAL SOCIETY members held a meeting in the Randolph County Hospital, February fourteenth. Dr. I. E. Brenner of Winchester presented a paper on “Complications Following Gall Bladder Surgery.” Dr. Russell Engle of Farmland showed a two-reel film on the subject. Dr. A. M. Brenner of Winchester gave a report of the Northwest Regional Conference and the Secretaries' Conference.

* * *

RUSH COUNTY MEDICAL SOCIETY officers for 1938 are: President, Donald I. Dean, Rushville. Vice-president, R. O. Kennedy, Rushville. Secretary-treasurer, Dr. R. D. Spindler, Milroy.

(Continued on page XXVI)

Annual Course of Graduate Study

INDIANA STATE MEDICAL ASSOCIATION
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A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

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BALTIMORE, MARYLAND

(Continued from page XXIV)

ST. JOSEPH COUNTY MEDICAL SOCIETY met in South Bend at the Jefferson Plaza, March seventh, to discuss the survey of medical care. Attendance numbered forty-eight. This was a business meeting to outline the need for a medical care survey and methods of carrying out the survey in St. Joseph county.

* * *

SHELBY COUNTY MEDICAL SOCIETY members held a meeting in Shelbyville, March second, with Dr. Rollin Moser of Indianapolis as guest speaker. Dr. Moser's subject was "Gall Bladder Disease."

* * *

STEBEN COUNTY MEDICAL SOCIETY officers for 1938 are:

President, Dr. W. F. Waller, Angola.

Vice-president, Dr. M. M. Crum, Angola.

Secretary-treasurer, Dr. Katherine Jackson, Angola.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at the Lafayette Home Hospital, March eighth. In the afternoon moving pictures and a clinic formed the program. In the evening a dinner meeting was followed by an address by Dr. Lillian R. Smith of Lansing, Michigan, upon the subject, "The Summer Round-Up of Pre-School Children." Seventy physicians and parent-teacher officers were present.

* * *

VANDEBURGH COUNTY MEDICAL SOCIETY members met in the Vendome Hotel, Evansville, March eighth. Dr. Charles Willis presented a paper on "Hypertrophic Pyloric Stenosis," which was discussed by Drs. H. C. Ruddick and H. D. Lynch. Attendance numbered forty-four.

At this meeting the Vanderburgh County Medical Society, an unincorporated organization, was dissolved, and the assets of the organization were transferred to the new Vanderburgh County Medical Society, Inc., a corporation not for profit. Constitution and by-laws were adopted, and the articles of incorporation of the organization were approved and filed by the Secretary of State of Indiana on February 16, 1938.

A special meeting of the society has been called for March twenty-ninth to discuss the survey which is contemplated.

* * *

VIGO COUNTY MEDICAL SOCIETY members met at St. Anthony Hospital in Terre Haute, February eighth, to hear Dr. James F. Spigler of Terre Haute discuss "Collapse Therapy for Tuberculosis." Attendance numbered forty-two.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY members met at the Richmond Leland Hotel in Richmond, March tenth. Dr. Floyd T. Romberger of Lafayette was the principal speaker, his subject being "Inhalation Anesthesia Up to Now." Attendance numbered thirty-six.

* * *

WABASH COUNTY MEDICAL SOCIETY members held a dinner meeting in Wabash, March second. The principal speaker was Dr. Russell S. Henry of Indianapolis whose subject was "Tuberculin Testing and Tuberculosis in Children." Members of the Tuberculosis Association of Wabash were guests.

* * *

WELLS COUNTY MEDICAL SOCIETY officers for 1938 are:

President, George B. Morris, Bluffton.

Vice-president, H. B. Smith, Bluffton.

Secretary-treasurer, William B. Gitlin, Bluffton.

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FETAL AND NEONATAL LOSS*

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During the very recent years the public and the profession have been acutely interested in maternal mortality, and at present are much exercised in behalf of its reduction. On the other hand an almost equally important and closely related mortality, that of fetal and neonatal loss, has been and is attracting very little general concern. The importance of this latter mortality is best weighed by the fact that throughout this and other lands, the birth rate is approaching the death rate, in some instances to an alarming degree.

One accustomed to attending the monthly staff meetings of a maternity service cannot avoid being impressed by the number of stillbirths and infant deaths during the early days of life that are regularly reported. His impression is deepened when he goes further and checks his private and clinic obstetrical case histories and learns in addition the number of fetal deaths that occur prior to viability. Indeed, he is but little short of startled by the realization that fully one-third of all conceptions do not survive pregnancy, labor, and the first month of extrauterine life.

It was the realization of this large mortality, in major part preventable, that furnished the basis for this article. To that end the consideration is to include all infant deaths from the time of conception to the end of neonatal period, now rather generally accepted as the first thirty postnatal days. The chief objective is to impress the magnitude of this more or less unheeded yet fundamentally important life loss, by stressing the number of conceptions that fail to produce live offspring. The discussion will include a limited consideration of the underlying causes and prevention of such failures, and a gesture of appeal will be made for a more specific effort for the welfare of the unborn.

The extent of the mortality under consideration is contained in the fact that there are occurring annually in the United States something like 700,000 abortions (all fetal deaths prior to viability), over

85,000 stillbirths and not less than 80,000 infant deaths within the first month of life.¹

The number of abortions is outstandingly important in that it represents fully 80% of the total fetal and neonatal loss, and 30 to 35% of all conceptions. It is practically impossible to determine abortion rate, even though two states (Missouri and Maryland—also, New York City) require the reporting of all products of conception. Some recent investigators estimate that one out of every two pregnancies terminates in abortion. The above total figure (700,000) represents an estimate based upon Taussig's urban rate of 1 abortion to 2.5² confinements and Plass's³ rural rate of 1 abortion to 5 confinements. Any derived figure will in all probability remain highly speculative because of such prevailing factors as frequent false diagnosis, subterfuge histories, inestimable number of fertilized ova lost in ectopic implantations, and a still larger group, those that either because of intrinsic or extrinsic reasons perish soon after fertilization and are passed off without recognizable subjective or objective symptoms.

Although there is a strong alienation between fetal and neonatal deaths as to cause and prevention, for discussion purposes it is best to divide them into three groups according to the period in which they occur, namely, antepartum, intrapartum, and postpartum. The antepartum deaths fall into two distinct subgroups, the previable and the viable.

The previable group constitutes all abortion deaths—that is all gestations terminating from the time of conception to the 28th week. Based upon etiology they are classified as criminal, therapeutic and spontaneous. Because of a similar clinical course, the so-called accidental abortion is included under the spontaneous variety.

CRIMINAL ABORTIONS

Criminal or induced abortions comprise more than 60%⁴ of all previable deaths, and are closely

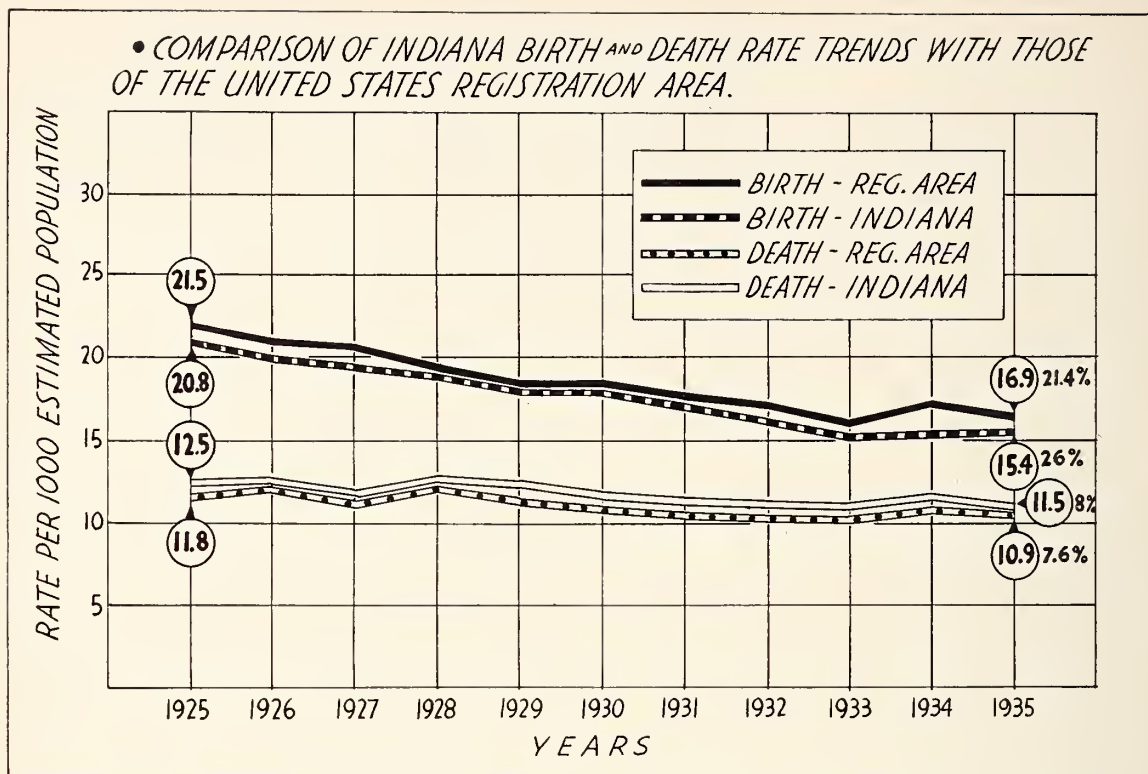
¹ Adair, F. L.: *Am. J. Obst. and Gynec.*, v. 21, p. 767.

² Taussig, F. J.: *Abortion, Spontaneous and Induced*, St. Louis, 1936, C. V. Mosby Company, p. 25.

³ Plass, E. D.: Personal report on questionnaire of Iowa physicians, 1931.

⁴ Taussig, F. J.: *Abortion, Spontaneous and Induced*, St. Louis, 1936, C. V. Mosby Company, p. 366.

* Read before the Medical Section of the Indiana State Medical Association at the annual session held in French Lick, October 5, 1937.



During the ten-year period from 1925 to 1935 the Indiana death rate remained steadily above that of the registration area, while the birth rate persisted below that of the area, declining more than that of the latter by 4.6%.

It is noteworthy that the declining birth rate was well established before the years of economic depression.

associated with one-half⁵ of all maternal deaths due to sepsis. That the economic strain is a stronger underlying factor than laxity of morals is demonstrated by the fact that a majority of illegal abortion deaths occur among married rather than among unmarried women.⁶ Also, the number of abortion deaths among para VII's is twice that among para I's.⁷

In that induced abortions arise chiefly from social and economic conditions much of the solution of their prevention should properly arise from governmental concern. Although the medical profession is excused from taking the initiative in the economic realm, it does have quite a direct responsibility toward saving a large per cent of these fetal lives through education of the general public. Such education should first of all correct the rather prevailing erroneous idea that the fetus prior to the time that the mother first feels life exists in sort of a vegetative state, and that its destruction during this period does not incur any special moral involvement. Such a belief should be firmly replaced

by the biologic and medical concept that human life begins from the moment of conception, and although the young being comes into existence by no act of its own, it possesses the prime right of life equally with him who would seek to destroy it.

Perhaps nowhere in the entire field of medicine does the tactful and conscientious physician have so real an opportunity to save lives, nor do many occasions afford him a greater inner warmth than when he succeeds in deterring contemplated abortions until impulse and emotion have been replaced by common sense.

In combating the increasing practice of induced abortion for *unwanted* pregnancies, medical science will employ more and more that most effective present day measure, contraception (mechanical, chemical or physiologic), seeing to it that the administration and dissemination of such advice, distributed only under medical control, be widespread particularly among the poor. Preventive medicine welcomes this measure in that it places a more important significance upon life destruction than upon life prevention.

Also, it should not be overlooked that before the problem of fetal loss from illegal abortion is effectively solved, the profession must take an active organized stand against that termite of human society, the professional abortionist, who although

⁵ Children's Bureau Report: p. 103, 1934.

⁶ Taussig, F. J.: Abortion, Spontaneous and Induced, St. Louis, 1936, C. V. Mosby Company, p. 372.

⁷ Committee on Public Health Relations, New York Academy of Medicine: Maternal Mortality in New York City, Brattleboro, Vermont, 1933, E. L. Hildreth and Company, p. 58.

frankly recognized as the deadly enemy to the unborn is permitted to flourish in practically every modern community. Such a stand would include a closer cooperation with local legal authorities, and the bringing about of modifications of unenforceable laws, thereby restoring that protection to human life implied by our forefathers when they said in part, "—provide for the common defense and promote the general welfare,—".

THERAPEUTIC ABORTION

Although there are numerous instances where reasons for therapeutic emptying of the pregnant uterus are unimpeachable, improved medical and obstetrical knowledge has in recent years removed many former bona fide indications.

Pulmonary tuberculosis still remains the most common cause for interruption. However, many authorities of today restrict the indication only to advancing cases during the early months of gestation. Latent tuberculosis is no longer a definite indication. With the advent of intravenous glucose therapy severe hyperemesis only rarely requires interference. While formerly the uterus was emptied almost routinely in diabetic cases, today intelligent insulin and dietary therapy greatly limit the need. Early and adequate prenatal care carries many toxic and nephritic cases well into the viable period, making it possible to save the baby without special risk to the mother. Also, many a pregnant cardiac woman is spared therapeutic abortion by proper preconceptional and prenatal care. Today, as with tuberculosis cases, more conservatism is being manifested in handling cardiac cases. Since thyroidec-tomy has been proven a safe procedure during pregnancy, hyperthyroidism rarely indicates abortion. Although formerly it was quite common to interrupt early pregnancy in cases of contracted pelvis, with the improvement of cesarean technic, and in some instances the employment of induction of premature labor, such an indication has become obsolete. Social and economical reasons are not countenanced as legitimate grounds for terminating a pregnancy.

In noting the considerable reduction in indications for abortion in the few medical conditions mentioned, one becomes more impressed by the statement that "Therapeutic abortion always constitutes a failure of medical science."

Finally, it is to be stressed that in dealing with *undesirable* pregnancies the necessity for their therapeutic termination can be reduced to a minimum by employing adequate contraception and selective sterilization, for it is more logical to prevent than to destroy.

SPONTANEOUS ABORTIONS

Spontaneous abortions account for approximately 40% of all previable fetal loss. The earlier they occur in gestation the less is known regarding the etiology, and the less can be accomplished in the way of prevention. The primary causative factors may be of either fetal, maternal, or paternal origin.

The fetal cause may be an ovulogenic factor giving rise to malformation or monstrosity; a defective trophoblast, resulting in a blighted ovum; or a faulty implantation, such as placenta previa (accounts for 15%⁸ of abortion cases from 3 to 5 months).

The maternal factors are manifold. A partial list includes endometritis, uterine fibroids and polypi, malformed uterus, uterus in fixed retroversion, pelvic pathology, toxemia and hyperpyrexia from acute infectious diseases, nephritic toxemia, diabetes, syphilis, endocrine disturbances and vitamin deficiencies.

Paternal influences are apparently inherent in the spermatozoa. Debilitated and physiologically or morphologically defective spermatozoa may fertilize an ovum but the conceived product does not possess sufficient quality to survive gestation.

Important secondary factors that frequently play a role in the etiology of spontaneous abortion may be listed as follows:

1. *Physical trauma*—falls, blows, attempts at induced abortion, long and rough automobile rides, and sexual intercourse.
2. *Psychic trauma*—fear, psychic shock.
3. *Cyclic activity (or irritability) of the uterus*—especially when associated with any other factor.
4. *Irradiation of the pregnant uterus.*

LIVE BIRTHS AND DEATHS UNDER ONE YEAR: INDIANA
1926-1935

Year	Live Births	Deaths Under One Year	Deaths Under One Month	
			Number	% of Tot. Under 1 Yr.
1926	62,788	4,543	2,298	50.6
1927	62,298	3,664	2,071	56.5
1928	60,289	3,769	2,048	54.3
1929	58,830	3,742	2,105	56.3
1930	59,278	3,423	1,899	55.5
1931	55,973	3,224	1,813	56.2
1932	53,073	2,903	1,671	57.6
1933	50,480	2,675	1,641	61.3
1934	52,349	2,960	1,683	56.9
1935	52,909	2,690	1,637	60.9
Total	568,267	33,593 5.9% of L. B.	18,866	Av. 56.6%

While the yearly number of live births in Indiana decreased approximately 10,000 from 1926 to 1935, the percentage of infant deaths under one month rose from 50.6% to 60.9% of those that occurred under one year.

The percentage increase of deaths under one month results not so much from poorer obstetrics but rather better pediatric care after the first month. However, the gross number (18,866), representing the loss over a very limited period, sharply indicates the need for better obstetrical care—in that the majority are obstetrically preventable. (Of course this gross number includes the malformed and others not physically equipped for life.)

⁸ Rhenter, J., and Pigeaud, H.: *Gynec. and Obst.* 18:464-470, 1928.

PREVENTION OF SPONTANEOUS ABORTION

When it comes to considering the prevention of spontaneous abortion it is bewildering to note the great number and variety of accepted causes, and the more so in face of the fact that a majority occur without known cause. Indeed, our present day knowledge is largely in inverse ratio to the number of causative factors. However, some very helpful knowledge has been ascertained and will be briefly given.

First of all, the care is one of prophylaxis, and in many instances with a history of previous abortions should be applied to either the husband or the wife, or both, before another conception is undertaken.

In case of the husband the following abnormal conditions are to be sought and corrected: pus in the semen, low virility of spermatozoa, defective germ plasma (vitamin E), low metabolic rate, and syphilitic infection.

In treating the wife the common conditions to be corrected are relaxed pelvic floor with prolapse, deep cervical lacerations, hyperplastic endometrium, adherent retroverted uterus, infantile uterus, low ovarian function, hypothyroid function, focal infections, and syphilitic disease.

Prophylaxis after pregnancy has become established is more paramount, and some of the instances in which it effectively applies are herewith considered:

1. If the uterus is retroverted it should be gently replaced bimanually at about the 6th or 8th week and held in place by a pessary until the 14th week.

2. In the event of repeated abortion, the so-called habitual abortion, corpus luteum, orally or intramuscularly, should be given with much assurance in that it has proven to be the most satisfactory of all endocrine preventatives. It may be given over a limited period or throughout pregnancy.

3. Of the most complicating diseases of pregnancy in the way of immediate and remote effects upon the fetus, syphilis is the one most often overlooked. Although the serologic examination is routine in the better prenatal clinics, in private practice a dead or live baby presenting signs of syphilis often precedes such an examination.

Antepartum treatment is designed primarily for the unborn baby and the earlier it is started in pregnancy the more successful it is. Its saving effect upon fetal life has been strikingly shown by the work⁹ of McCord who succeeded in having but one abortion occur under six months gestation in 596 treated luetic mothers, in contrast to 85% of luetic mothers aborting who had no antepartum treatment.

The treatment must be continuous alternating throughout pregnancy, and as vigorous as in the non-pregnant.

4. Preeclampsia which not infrequently appears during the latter part of the previsible period must be considered of greatest importance in that it is the prodromal of eclampsia which carries a fetal mortality of near 50%.¹⁰

It is here that prenatal care through early recognition of symptoms and prompt and judicious treatment greatly diminishes the fetal mortality by preventing or at least controlling the toxemia until after viability.

5. Although diabetes complicating pregnancy bears a 40%¹¹ fetal mortality, much of this loss can be averted by placing the patient promptly under expert diabetic supervision, hospitalization being frequently essential.

6. Since most abortions occur at the time of the menstrual cycle, owing to the increased uterine irritability, many such disasters may be prevented by precautions against certain other factors during that period. This is particularly true if there be a history of previous abortions. Restrictions should be placed upon coitus, long automobile rides, hiking, lifting and various arduous activities. In some cases bed rest may be advisable. These precautions are most applicable during the first 16 weeks.

7. Large therapeutic doses of x-ray or radium applied to the pregnant uterus have a very deleterious effect upon the fetus, in the early weeks producing death and abortion in 96%¹² of cases, and after viability gross defects in 40%.¹³ Therefore in treating fibroids it would be well in certain cases first to exclude pregnancy by the Aschheim-Zondek test. On behalf of the fetus near viability heavy radiation for cancer of the cervix in some instances should be compromised by local irradiation temporarily.

8. In the case of habitually aborting women having a low metabolic rate, one-third¹⁴ of them can be enabled to carry to term under thyroid medication.

9. In that vitamin deficiency, usually the result of life-long curious dietetic habits, is now a recognized cause of repeated abortion, some selected pregnancies can be sustained by the administration of certain vitamins, particularly vitamin E.

PROPHYLAXIS AFTER UTERINE CONTRACTIONS HAVE BEGUN

After uterine contractions have begun their progress can often be checked by hypodermic opiates followed by large doses of barbiturates. Some use rectal suppositories of powdered opium and extract of belladonna.

¹⁰ Stander, H. J.: *Williams Obstetrics*, Seventh Edition, New York, 1936, D. Appleton-Century Company, p. 769.

¹¹ Ronsheim, J.: *Am. J. Obst. and Gynec.* 25, 710, 1933.

¹² Mayer, M. D. et al.: *Amer. J. Obst. and Gynec.*, v. 32, p. 948, 1936.

¹³ Baer, J. L.: *Am. J. Obst. and Gynec.*, v. 34, p. 377, 1937.

¹⁴ Litzenberg, J. C.: *Am. J. Obst. and Gynec.* 12:706, 1926.

⁹ McCord, J. R.: *J. A. M. A.* 105:89, 1935.

STILLBIRTHS, AND DEATHS UNDER ONE YEAR DUE TO PREMATUREITY AND BIRTH INJURY: INDIANA 1926-1935

Year	Stillbirths		Prematurity		Birth Injury	
	Total	Per 1000 l. b.	Under 1 yr.	Under 1 mo.	Under 1 yr.	Under 1 mo.
1926	1,922	31	1,071	1,035	233	231
1927	1,936	31	1,009	977	282	277
1928	1,877	31	956	932	232	228
1929	1,730	29	972	938	252	252
1930	1,754	30	881	852	246	243
1931	1,628	29	849	808	226	225
1932	1,518	29	767	740	254	248
1933	1,356	27	775	751	204	199
1934	1,400	27	820	789	221	220
1935	1,430	27	779	756	226	223
Total	16,551	Av. 29	8,879	8,578 (96.6%)	2,376	2,346 (98.7%)

The stillbirth rate is quite constant, and rather consistently approximates one-half of all deaths under one year—(Ten-year average 29:59).

It is shown that during the period 1926-1935 inclusive 96.6% of all prematures succumbed under one month and that their gross number constituted 47% of all deaths during the first thirty postnatal days. This would indicate that prematurity is a most important factor in neonatal deaths.

During the period of 1926-1935 inclusive one neonatal death in eight (12½%) resulted from birth injury. It should not be overlooked that the number of deaths from birth injury does not include the large number of such deaths born as stillbirths.

However, all medication is secondary to absolute bed rest, preferably in the hospital, vaginal examinations being avoided if possible. The patient should be kept in bed five to seven days after the last fresh bleeding.

INTRAPARTUM VIABLE DEATHS

For the most part causes of infant death during the viable period (after the 28th week to term) of intrapartum life are the same as those that operate during the previable period, the outstanding ones being syphilis, toxemia of pregnancy, chronic nephritis, diabetes, and the two placental abnormalities, previa and abruptio.

Because most deaths of untreated syphilis occur during the late previable and viable periods, the need for continued intensive luetic treatment is doubly warranted, especially when it is realized that such care eliminates practically all mortality from this condition.

Toxemia of pregnancy, or preeclampsia, and its successor, eclampsia, incur most of their infant deaths during this, the viable period, thereby stressing the real need for control of the toxemia, which intelligent antenatal care extends as its outstanding contribution. This control permits the baby to live by carrying it to term, or at least well into the viability period.

Although chronic nephritis, ordinarily contraindicating pregnancy and carrying a fetal mortality of 70%,¹⁵ incurs most of its fetal loss during the previable period, frequently careful management will result in the birth of a normal infant.

Diabetes contributes a near majority of its fetal deaths during the viable period. Much of this mortality may be averted by efficient medical supervision, including modern insulin therapy.

The 65%¹⁶ infant mortality from placenta

previa, a condition usually manifesting itself during the last trimester by painless causeless bleeding, can be materially reduced by early diagnosis and prompt delivery, in the majority of instances preferably by cesarean section.

Likewise, in dealing with placenta abruptio, bearing a possible infant mortality of more than 90%,¹⁷ prompt recognition and immediate delivery by section afford the baby about its only chance for life.

INTRAPARTUM DEATHS, STILLBIRTHS

Deaths during birth occur at about the rate of three per one hundred live births, presenting no real reduction in the past twenty-five years. Grossly their number equals that of one-half of all deaths during the first year of life.

Although a rather discrediting large percent of these deaths result from undetermined causes, by far the two chief factors are birth injury and asphyxia, while gross malformation and syphilis also account for definite percentages.

Birth injuries, associated with fully one-half of these fatalities, can be effectively reduced by careful pelvic measurements taken during the prenatal time and by determination of position of the baby prior to labor. However, in many instances good prenatal foresight will net the baby but little if not assisted by good delivery judgment and technic. Premature, needless and unskilled interference carry a heavy responsibility in this field.

Most breech deaths are due to cranial and cord injury, and not to asphyxia. The 20%¹⁸ associated mortality in breech delivery can be reduced to 3% by routine external version during the latter weeks of pregnancy.

With the perfection of low cervical and extra-peritoneal cesarean technic, indication for craniotomy or other destructive operation upon the live baby has almost entirely vanished.

¹⁶ DeLee, J. B.: Principles and Practice of Obstetrics, Fifth Edition, Philadelphia, 1928, W. B. Saunders Company, p. 540.

¹⁷ Stander, H. J.: Williams Obstetrics, Seventh Edition, New York, 1936, D. Appleton-Century Company, p. 1114.

¹⁸ Schumann, E. A.: Text Book of Obstetrics, Philadelphia, 1936, W. B. Saunders Company, p. 402.

¹⁹ Stander, H. J.: Williams Obstetrics, Seventh Edition, New York, 1936, D. Appleton-Century Company, p. 387.

In reducing asphyxia deaths the careful checking upon fetal heart throughout labor can not be too strongly stressed, the observation being increasingly important as the moment of birth approaches.

In dealing with the majority of placenta previa cases the increasing custom of delivery by section greatly favors infant life in that it does not consider the baby a by-product and use it as a tampon.

POSTPARTUM OR NEONATAL DEATHS

Today two-thirds¹⁹ of all infant deaths under one year occur before the end of the first month. These neonatal deaths are preponderantly obstetric, resulting in major part from the three controllable causes, *prematurity, birth injury and septic infections*.

Prematurity accounts for over 50% of neonatal deaths, and in one-half of the instances there is an associated maternal pathology, such as toxemia, syphilis, diabetes, placenta previa and pneumonia.

The pediatrician can extend no spectacular help in dealing with prematures in that 50%²⁰ of the deaths present cranial hemorrhage, often induced by forceps delivery, breech extraction and internal podalic version. The more premature the baby, the greater the danger of this accident. If at all possible the delivery should be normal. In a primiparous labor a generous episiotomy (the more premature, the more generous) is indicated, and pressure from above should be substituted for forceps. All premature deliveries should be conducted in a hospital where efficient facilities are at hand, especially for the treatment of asphyxia, and constant supervision is available. The services of a pediatrician should be sought.

Before terminating pregnancy in the late preventable or early viable period, special effort should first be made, if at all feasible, to postpone such an interference even though it be only a week or two. An obstetrical opinion is often helpful. The error of too early premature induction of labor or delivery by section for toxemia early in the last trimester is far too common.

That which will prolong gestation to near term will greatly solve the problem of prematurity. At present no measure excels adequate prenatal care.

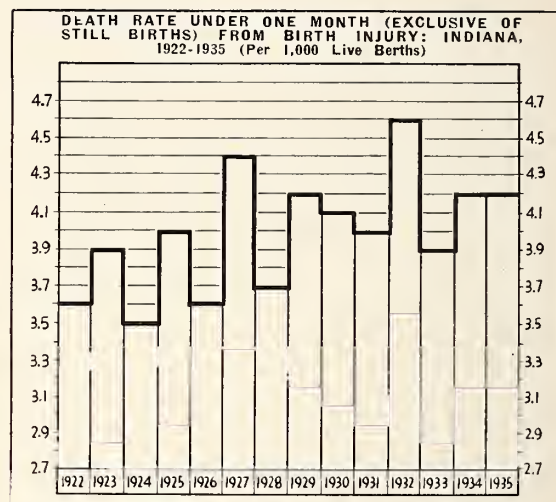
Although birth traumas include almost every organ in the body, intracranial injuries are the commonest and most important. Dangerous cranial stress is especially liable to occur in breech labor, forceps delivery, premature labor and too rapid delivery such as obtained by oxytocic drugs.

The injection of 30 cc of whole blood beneath the skin as a routine following difficult labors and manual deliveries occasionally saves a life.

One form of unnecessary trauma is that which sometimes results from some of the more vigorous methods of resuscitation. In no other instance in the field of medicine is there an attempt to restore

a victim of shock by swinging him through the air and tubbing him in waters of extreme temperatures.

Although good obstetrics includes a certain infant mortality from birth injury, it does not countenance the prevailing rate.



The above graph and similar data gathered elsewhere (United States²¹ and England²²) not only portray the important mortality from birth injury but seem to indicate that infant loss from this source is on the increase. However, the latter inference is probably false in that the recorded rise most likely represents a more accurate diagnosis of the cause of stillbirths and neonatal deaths, brought about by the fact that more and more babies are being born in hospitals and a greater number of post-mortems are being done.

While one may agree, as thus suggested, that the injuries are more in the doctors' minds than in the babies' heads, he must admit that the maintained rate of birth-injury deaths is irreconcilably high, and that it perceptibly indicates the inadequacy of the present day teaching of the obstetric art. How helpful it would be to precede student manikin instruction by a series of autopsies on dead newborns in order to learn how fragile fetal structures are, and how readily intracranial injuries can be sustained!

Deaths from septic infections constitute about one-third²³ of all neonatal loss. This source of death is quite directly controllable through aseptic delivery and nursery technic, and strict isolation of the infant from visiting relatives and friends of the family, and those hospital attendants afflicted with colds and infected lesions.

Death from asphyxia due to obstructed air ways can be prevented by the free use of the intra-

²¹ Holland, E.: *Am. J. Obst. and Gynec.*, v. 33, p. 2, 1937.

²² Murphy, D. P.: *Am. J. Dis. Child.*, v. 51:1107, 1936.

²³ Murphy, D. P., and Maser, M.: *J. A. M. A.*, v. 105: 849, 1935.

¹⁹ Myers, T.: *Minn. Med. J.*, No. 10, p. 34, 1935.

²⁰ Swanson, E. S.: *Journal-Lancet*, v. 57, p. 186, 1937.

tracheal catheter—first aspirating the mucus and then, when indicated, with the catheter still in the trachea, gently and intermittently inflating the bronchial tree.

Atelectasis is a grossly exaggerated primary cause of death. It usually signifies immaturity, or is secondary to some other lesion. If the condition is not too extensive, free oxygen may be life saving. Bronchoscopy, assisted by x-ray, is bidding for recognition in this field.

Malformation deaths, equaling conservatively 10% of all neonatal deaths, will always be inevitable. However, the old view of exhausted germ plasm is supported by the findings that most defectives are born to mothers past thirty years of age, the biggest increase after the age of forty,²⁴ and that there is a direct relationship to multiparity.²⁵

In that over 40%²⁶ of syphilitic live-born die during the first month, any attempted reduction in this mortality again emphasizes specific treatment during gestational life.

A modern cause of postnatal death is narcosis. In controlling labor pains by strong narcosis and sedation, one should keep in mind the possible effect upon the baby. Resuscitation is best accomplished by gentle mouth to mouth breathing, inflation through intratracheal catheter, or by employing one of the safe and reliable automatic resuscitators.

SOME SPECIAL CONSIDERATIONS

1. Efficient prenatal supervision has proved to be so strong a factor in combating the extraordinary life loss from the time of conception to the end of the first month of life that it should be extended as a protective measure to every unborn. This is so positively true that there should be statutory provision for such care. The State has already shown special interest in the welfare of the child after birth by surrounding it with the safeguards of sundry health regulations. Perhaps to a still greater advantage this same interest could be extended to include the important physical formative period. A legal requirement for early registration of every pregnancy would be a helpful advance in this direction.

2. Syphilis, the no longer "secret scourge," bears an unique role in relation to fetal and neonatal loss in that while it is the most devastating factor as to immediate and remote effects, it is at the same time one of the most conquerable.

It is almost impossible to cure congenital syphilis after birth, but sufficient antepartum treatment assures a syphilis-free baby in 95%²⁷ of the cases.

The failure to recognize this infection is readily solved by the routine Wassermann. Were such a

measure to become compulsory, the effect upon infant and community health would be much farther reaching than that of the required Credé treatment of the eyes of the new-born.

Since the health organizations throughout the State are at present working diligently under the slogan, "No child born with syphilis in Indiana by 1940," it is more than surmise that the next State Legislative Assembly will pass a law, making a serologic test compulsory upon every expectant mother.

3. Few things indicate more the apparent general indifference to fetal and neonatal loss than the complete variance among accepted definitions of stillbirth. Most states require that stillbirths be reported from the fifth month on, while three (Indiana, Washington, North Dakota), from the seventh month on. While five states report a stillbirth as a stillbirth, the remaining states require both a birth and a death certificate.

If vital statistics gathered over wide areas are to assist in solving the problem of fetal and neonatal deaths, it is paramount that uniform standards be commonly employed.

The following definitions are those formulated by the American Public Health Association and endorsed by the Committee on Neonatal Morbidity and Mortality of the American Pediatric Society.²⁸

Live Birth: A liveborn infant is one who shows any evidence of life after complete birth. Evidences of life are breathing, action of the heart, or movement of a voluntary muscle.

Stillbirth: A stillbirth infant is one who shows no evidence of life (no breathing, no action of the heart, no movement of voluntary muscle) after complete birth. (*Complete Birth*—a birth is complete the instant of complete separation of the body of the infant from the body of the mother whether or not the cord is cut or the placenta detached.)

Abortion: An abortion is any product of conception of less than twenty-eight weeks' gestation, measuring 35 cm. or less, and weighing less than 1500 grams (three and one-fourth pounds).

Premature Infant: An infant with a birth weight of five pounds eight ounces (2500 Gm.) or less, a crown-heel length of 47 cm. or less, and a gestation of thirty-seven weeks or less, should be considered immature and, by virtue of the fact that special handling is indicated, premature. Birthweight is the most important guide.

Neonatal Period: The first thirty days of postnatal life.

4. In that a considerable amount of fetal-neonatal mortality is directly associated with maternal mortality (according to the recent three years' Philadelphia maternal loss report, approximately eight times as many stillbirths are associated with

²⁴ Bureau of the Census Report, p. 150, 1934.

²⁵ McCord, J. R.: *J. A. M. A.*, v. 105:92, 1935.

²⁶ Am. Pub. Health Yearbook: Special Report, Stillbirths, 1935-1936.

²⁷ Bonar, B. E.: *J. of Pediat.*, v. 9, p. 97, 1936.

²⁸ Taussig, F. J.: *Abortion, Spontaneous and Induced*, St. Louis, 1936, C. V. Mosby Company, pp. 28, 388.

maternal mortalities as live births are), it is suggested that to save more babies, save more mothers. This in turn would suggest that expectant mothers be extended more efficient obstetrical care. That only 15%²⁹ of American mothers are delivered by obstetricians may in a measure account for some of the present fetal-neonatal mortality.

5. While common law extends full legal rights to the unborn from the moment it stirs within its mother's womb, it does not recognize it as an individual before then. On the other hand medical science recognizes the right of life from the moment of conception.

Herein exists an interesting paradox in that, so far as present statutes are concerned, whether or not an unborn live viable infant should be rescued from the womb of a dead mother is wholly optional.

For the sake of the child the moral law should not prevail alone, but should be superseded by legal provision equal to that of the early Roman Lex Caesarea, demanding an immediate cesarean birth of every unborn child of a mother dying during the last weeks of gestation.

SUMMARY

1. It would seem that the appalling waste of the very young, represented by over 30% of the conceptions that do not survive pregnancy, labor, and the first month of life, is not only contrary to Nature's original scheme, but indicates a keen reflection upon the highly distinctive intelligence she has bestowed upon the species.

2. In considering the preponderance of induced abortions, it would appear that in attempting to solve its socio-economic ills, society is taking the "hard way" when it attempts to do so by destruction of its unborn. It is noteworthy that the practice has steadily increased for the past twenty-five years.³⁰

3. The fetal and neonatal mortality will become increasingly important as we approach a stationary population.

4. Fully *two-thirds* of the present day fetal and neonatal mortality is preventable.

5. A definite reduction in this life loss is immediately available through extermination of the abortionist. Organized medicine has the responsibility of taking the initiative in such a movement.

6. *Undesirable* pregnancies, where possible, should be controlled by adequate contraception (mechanical, chemical or physiologic) and selective sterilization rather than by therapeutic abortion.

7. Despite our limited medical knowledge upon the causation of spontaneous abortion, individualized study as to cause, and the application of appropriate therapy result in a surprisingly high percentage of prevention.

8. The most completely controllable single large factor in fetal and neonatal deaths is syphilis. Since early recognition of the disease is so impor-

tant, it is hereby suggested that a state statute make the serologic test in early pregnancy compulsory.

9. A large part of the problem of fetal and neonatal loss will be solved by that which extends gestation to near term—*adequate prenatal care*.

10. Since prenatal care is so unavoidably important in solving the appalling fetal and neonatal mortalities, it is recommended that provision, extending adequate prenatal supervision to every unborn, be made even though such provision would require the early registration of every pregnancy.

11. *The stationary stillbirth rate demands critical attention*. Needless to say, good obstetrical judgment and skill will continue to be highly important in reducing natal and postnatal mortality.

12. The need is stressed for general uniformity in definition of such terms as "live birth," "stillbirth," "abortion," "premature infant" and "neonatal period."

13. The obstetrical attendant should fully realize his responsibility in behalf of the right of life of the unborn.

In final statement, it is hoped this exposé will assist in dislodging the customary complacency toward fetal and neonatal loss.

445 NORTH PENNSYLVANIA STREET.

DISCUSSION

KARL M. BEIERLEIN, M.D. (Fort Wayne): The subject which Dr. McCormick has so well presented is a many sided one, and opens up a rich field for discussion. In the final analysis the irreducible minimum of fetal and neonatal mortality will be attained only by better obstetrics. Here only gradual improvement can be expected, since education of both the public and profession is involved. It seems Utopian to expect that everyone accepting maternity cases will proceed in accordance with well recognized minimum standards of care and that every expectant mother can be influenced to demand such care.

There is little that I can add to Dr. McCormick's complete discussion, but further emphasis upon some of the facts he has brought out may be helpful. According to statistics of the Bureau of the Census, prematurity is unquestionably the most important predisposing cause of neonatal death. The prevention of premature birth is, therefore, the outstanding problem. The most frequent etiological factors—syphilis and overwork during the later months of pregnancy—can be dealt with successfully. In the present state of our knowledge, however, we cannot expect to be able to reduce the incidence of prematurity from such conditions as the various toxemias, abnormalities of the product of conception, and placenta previa. Since premature birth can not be eliminated, the possibility of improved results from better care of prematures must not be overlooked. In Chicago a lowered mortality of such infants has been brought

about by a well organized program for their care.

It is difficult for me to reconcile the attitudes of those who condone criminal abortion and yet are disturbed by the loss of infants who have advanced a little further in development. Surely those fetuses which are expelled before viability represent fetal loss as certainly as do those infants that die during or after delivery at or near term.

As an immediate cause of stillbirth and neonatal death, birth injury, most often intracranial, ranks first. Accurate prognosis of labor and delivery from observations during pregnancy along with the exhibition of requisite skill and judgment in the course determined by such observations will eliminate a large proportion of fetal trauma. In this connection I believe it should be emphasized that no amount of prenatal care will compensate for injudicious interference or bad technic in the conduct of labor. It seems remarkable that more infants are not injured by the rough handling to which many are still subjected if a lusty cry does not immediately follow birth.

Efforts to relieve the suffering incident to childbirth have been criticized by some who believe that the proportion of operative labors, involving more danger for both mother and child, is thereby increased. They present no concrete evidence to support such a view or that the temporary apnea frequently observed is really harmful. They base their objections mainly upon the greater demand made upon the time and patience of the attendant. Such a consideration will not deter the conscientious physician who is sincerely interested in improving the lot of parturient women. It is well recognized that in premature labor the administration of morphine within a few hours before birth may account for death of the infant. With this limitation, my experience is in agreement with those who believe that the relief of pain during parturition is not merely harmless but is attended with positive benefit. Humane treatment of women in labor will not increase infant mortality.

H. F. BECKMAN, M.D. (Indianapolis): Dr. McCormick's paper is very timely as at this session the House of Delegates is entertaining a motion to reduce this mortality through a statistical study of the causes thereof. In the July 31 issue of the *Journal of the American Medical Association*¹ Drs. Fishbein and Bundesen analyze statistics of Chicago, and in the September issue of *The Journal of the Indiana State Medical Association*,² Dr. Mettel presented data from the various counties of our own State. This is certainly an interesting study. It is difficult to conceive why the infant mortality in different counties should range from 18 to 88 per 1,000 and why the maternal rate

should be from 0 to 12.6 per 1,000 births. You men who are from the smaller communities know that poverty, carelessness and disease are causative factors. Economic and social conditions contribute to 50 per cent of the mortality. We trust that if the House of Delegates approves of this, when we send to you the questionnaire asking you for more pertinent facts concerning maternal or fetal death, you will be prompt in reply. Every county medical society should have a committee on maternal welfare and child welfare. Tradition and heritage have brought to the doctor the responsibility for the health in his community and we trust that we may ever deserve to merit this confidence. We beg your assistance if we should come to you for questions, asking for further particulars concerning deaths since the object is not criticism of the doctor; the object is to accumulate statistics which will benefit the doctor and which may be shown to the public who are becoming more interested in this subject.

"DOC QUIZ" ASKS—

- Question 1: What is meant by the "law of fistula"?
- Question 2: How does a sinus differ from a fistula?
- Question 3: Does ability to pass a 26 sound rule out a stricture?
- Question 4: Does sulfanilamide cure acute gonorrheal urethritis in 48 hours?
- Question 5: What is the commonest cause of heart disease up to the age of 40?
- Question 6: What is the most important drug in the treatment of acute coronary occlusion?

(Answers on page 259)

THE ANNUAL POSTGRADUATE COURSE

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MAY 23-27, 1938

See complete program
on page 260

¹ Fishbein, W. I. and Bundesen, H. N.: Factors Responsible for Failure Further to Reduce Infant Mortality. *J. A. M. A.*, Vol. 109, No. 5, July 31, 1937.

² Mettel, H. B.: Evaluation of Maternal and Child Health Services in Indiana. *J. Ind. State Med. Assoc.*, Vol. 30, No. 9, Sept. 1937, p. 432.

INCIDENCE AND MORTALITY OF CESAREAN SECTION

KARL M. BEIERLEIN, M.D.

Fort Wayne

It is generally concluded by commentators on the subject that the incidence and mortality of cesarean section in the United States are excessive. In recent years, with the increasing use of all surgical procedures, the cesarean operation has grown in popularity, and yet it has not lowered maternal mortality. Stander states that a diminished cesarean incidence would result in bringing our national maternal death rate down more nearly to that of other countries where vaginal delivery is more common and where the physiological character of labor is better appreciated. Jeff Miller in 1929 concluded that the proportion of living mothers and infants obtained by this operation fails to justify its use, and that average mortality figures show plainly that cesarean is a dangerous measure. Lynch, in a recent plea for more conservatism in cesarean section, shows that although its incidence is rapidly increasing yet the maternal mortality rate in the United States has not been lowered. Such a result might reasonably be expected if the indications for the operation were sound and its mortality properly low. Analysis of figures for individual states in the last five years showed that the lowest maternal mortality rates did not uniformly occur in those states with the highest incidence of cesarean section. He points out that such a relationship would hold if the operation now saved lives that would have been lost during other methods of delivery formerly employed and now largely abandoned.

Many of the published statistics indicate a growing popularity of cesarean section and an increasing associated mortality. Lynch points out that its incidence in certain mortality studies has risen from 11% in 1927 to 33% in 1934. Thus cesarean section preceded 11% of all puerperal deaths in or after the seventh month of pregnancy, in the Children's Bureau report from fifteen states for 1927 and 1928. For New York City, 1930 to 1932 inclusive, the figures were 19.8%; for Philadelphia, 1931 to 1933 inclusive, 23%; for San Francisco and the Bay cities, 1932 to 1935 inclusive, 31%; and for the seven large cities of the Pacific Coast, 1933 and 1934, 33%. In the United States approximately one-fourth of all maternal deaths after the seventh month of pregnancy follow cesarean section. Conditions in Indiana during 1936 were in sharp contrast with the picture thus presented. According to figures supplied for me by Dr. V. K. Harvey, director of the Indiana State Board of Health, there were 247 maternal deaths in Indiana during that year, and of this number only 16, or a little less than 6.5%, followed cesarean section.

Cesarean section was the method of delivery in 2.2% of all births in New York City from 1930 to

1932, 1.78% of all births in Philadelphia from 1931 to 1933, and 3% of all births in Los Angeles County during 1933 and 1934. It was the method of delivery in 2.58% of all hospital cases in New York City from 1930 to 1932 and in 5.5% of all hospital births in San Francisco, Berkeley, and Oakland in the period from 1932 to 1935. Figures compiled by David L. Smith show that 5.2% of deliveries in four hospitals of Indianapolis between November 1, 1927, and November 1, 1928, were by cesarean section. In 1934 the incidence in these hospitals was 4.2%, and in 1935 it was 4.8%. Here the frequency has shown little variation.

In 1934 there were six states in which at least 1.3% of all deliveries were by cesarean section. In Massachusetts the incidence was 2.05%, in California 2%, in Connecticut 1.53%. For the United States as a whole during that year the incidence was .76%. For Indiana it was .79%. Indiana's maternal mortality rate for that year was .58%, and the state fell into the group of states with the lowest maternal mortality and the lowest incidence of cesarean section.

To dispel the view that the operative mortality of cesarean section must be lower now than formerly, Lynch collected a series of 524,117 women delivered since 1930. In this group 12,955 deliveries were by section, and the mortality rate was 4.1%. Smith's statistics from four hospitals of Indianapolis, on the other hand, show a definitely downward mortality trend in recent years. Thus between November 1, 1927, and November 1, 1928, the maternal mortality rate accompanying cesarean section in those hospitals was 11.3%. In 1934 the rate fell to 4.8%, and in 1935 to 3.2%. The improved results were coincident with the greatly increased incidence of the low cervical operation. For a ten year period ending in 1935, Bickel reported a mortality of 7% following 312 operations done in and near South Bend. At the St. Joseph's Hospital in Fort Wayne, 13 of 605 deliveries in 1935 were by cesarean sections, an incidence of 2.1%. In 1936 there were 14 sections in 656 cases, the incidence remaining the same. No deaths occurred in this two year series, but recently in a period of three months there were four deaths in those who were cesareanized. These more recent results emphasize how valueless as a basis for conclusions small series of cases may be. In a series of 3,889 laparotrachelotomies performed by members of the Central Association of Obstetricians and Gynecologists and reported by D. L. Smith, the maternal mortality rate was .84%. In 1,875 such operations at the Chicago Lying-In Hospital the mortality was .96%. The greater safety of the low cervical operation needs no further comment here.

Such wide variations in incidence and mortality statistics easily lead to confusion. Depending upon which group of figures a reader sees, he is led to believe either that the cesarean operation is an extremely hazardous one or that it can be done

with relative impunity. A critical analysis leads to the conclusion that the elective cesarean section, in the hands of trained men, is one of the safest abdominal operations and should not be attended by mortality higher than that which occurs in invasion of the peritoneal cavity for other elective surgery. It does, however, have a mortality higher than that of normal delivery or simple operative vaginal delivery, and has no place as a substitute for these. The high mortality figures portray the results of obstetrical complications, poor judgment, and untimely operation, in addition to the mortality associated with the operation itself. They are a reflection not upon the operation but upon its abuse, and have led to much undeserved criticism of this extremely valuable means of delivery. Schumann of Philadelphia has pointed out the necessity, in evaluating statistics of cesarean mortality, of dividing the cases into those of an elective and those of an emergency nature. He says that to group together the cases of purely elective section with operations performed after vain attempts at forceps delivery, in the terminal phase of eclampsia, or on women exsanguinated from antepartum hemorrhage, is not only futile but foolish.

It seems to me that more important than the collection of statistics is their interpretation. The factors that have led to the abuse of the cesarean operation in some quarters are worthy of careful consideration. The causes will suggest their own remedies. A fundamental reason, as pointed out by Norman F. Miller, is the conception that every physician is an obstetrician. Too many men are accepting obstetrical cases who lack judgment or technical skill, both of which are essential to competent obstetrical practice. As Miller says, technical skill without judgment or judgment without skill, one without the other, is not sufficient if the patient is to be best served. Too many men who have the technical ability to perform the operation are ignorant of the fundamental principles of the obstetrical art and find cesarean section the only answer to their riddles regardless of unfavorable associated conditions.

Some of the bad results may be traced to the door of prenatal care. F. J. Browne states there can be no doubt that antenatal care has led to a great deal of unnecessary interference and meddling midwifery. In spite of this and other reports, the value of prenatal care need not be questioned. It should be understood, however, that no amount of prenatal care can ever be an adequate substitute for proper care at the time of confinement and was never so intended. It is easy to see how the inexperienced or poorly trained attendant may become unduly alarmed by his prenatal observations and choose cesarean section as the easiest way out of his difficulties. It always has been surprising to me how easily a patient may be sold on the idea of cesarean section. The fault here lies not with prenatal care but with those whose judgment and interpretation are poor. More im-

portantly concerned with bad results is lack of prenatal care, which contributes to the high proportion of emergency operations through failure to make an accurate prognosis of labor and delivery.

Other factors that result in frequent resort to cesarean section are inherent in the make-up of different individuals. Men of equal training and ability will differ widely in their views of legitimate indications. Now and then a physician is met who believes that the easiest and best way for a woman to have her baby is by the abdominal route. It makes one shudder to think that anyone so profoundly ignorant of the physiological nature of reproduction would accept the responsibility of caring for expectant mothers. Those who believe that all cases of antepartum bleeding are an indication for abdominal delivery will perform the operation more often than those who prefer to make an accurate diagnosis before proceeding with treatment. The rank and file, through inertia, indolence, or indifference, are still doing immediate cesarean section in convulsive toxemia although such action has been made obsolete by the more rational and successful conservative treatment. The grave risk of the classical operation in cases potentially infected, either by vaginal manipulation or prolonged rupture of the membranes, does not seem to be widely appreciated. It is true that cesarotomy entails less time and worry and brings greater financial rewards than more purely obstetrical methods of treatment.

To summarize, there are three factors that tend to bring the cesarean operation into disrepute: too liberal indications, improper timing of the operation, and failure to select the type of operation best suited to the circumstances.

Remote results, particularly with reference to complications in subsequent pregnancies resulting from the operation, as well as the immediate results, are worthy of consideration. An appreciation of the permanently crippling effect of the procedure as concerns future childbearing will stimulate due caution and deliberation in the conscientious attendant. We should remember that the skill of the obstetrician is best gauged not by the number of cesarean sections he has performed but rather by the number of complicated cases he has led to a happy conclusion by the vaginal route. Plass has said that any tyro can perform a section, but it often requires a high degree of obstetrical skill and judgment to decide that it is necessary.

347 W. BERRY STREET.

YOU WILL WANT TO ATTEND
SOME OF THE DISTRICT MEETINGS.
SEE PROGRAMS ON
PAGES 261-262

MOTHER'S MILK FOR ALL INFANTS

Mother's milk is now obtainable in Indiana for all infants.

St. Margaret's Hospital Guild, a charitable organization cooperating with the Indianapolis City Hospital, is sponsoring a mother's milk station. The station can now supply milk to hospitals or to private physicians on short notice.

Physicians who have had experience in the care of premature infants are agreed that human milk is essential to a low mortality rate in this group of patients. Because the mortality rate among premature infants at the Indianapolis City Hospital seemed to be at a standstill, it was thought best to try to obtain a supply of human milk as one aid to lowering the mortality rate, and the mother's milk station was started. The first plan was to try to obtain a supply of mother's milk from the obstetrical wards where some mothers had a surplus, but this source was so variable that the plan was not successful. Then St. Margaret's Hospital Guild was asked to contribute funds for the purchase of milk. These funds were obtained, and mothers who had a surplus of milk were paid for it. This marked the beginning of the St. Margaret's Hospital Guild Milk Station.

Since May, 1937, women who have had prenatal care and have been delivered in the Indianapolis City Hospital have formed the source of supply. These women are examined for contagious diseases including tuberculosis and syphilis. Each day they come to the ward, their milk is expressed manually or by electric pump, and the milk is then pasteurized and given to the infants on the ward or bottled for dispensing. Several Indianapolis pediatricians have used such milk for their private cases.

RESERVE SUPPLY

When the population of the premature ward is low and the income in milk shows a surplus, the surplus is frozen by the quick freezing method developed by the Directory for Mother's Milk, Inc., of Boston. The frozen milk, by analysis, shows that the frozen product does not differ chemically from fresh unfrozen milk even after the lapse of one month. A study of vitamin content by Dr. Walter H. Eddy shows that frozen milk as compared with unfrozen milk has lost none of its vitamins. Milk frozen by the quick method has been used five months later without causing intestinal disturbances or harmful effects of any kind.

In the fast freezing method, the pasteurized human milk is placed in molds which rest on blocks of dry ice. A lid supporting another block of dry ice is placed on top. In less than two minutes the milk is frozen. When taken from the molds, the milk is in wafers resembling peppermint candy patties. To restore the milk to the liquid state, the wafers are placed in an ordinary

refrigerator and allowed to melt to this temperature, then it is boiled once more, and bottled for feeding. In the frozen form the milk can be shipped, packed in dry ice, to any section of the country.

COST OF MOTHER'S MILK

The fast frozen milk is necessarily more expensive than pasteurized and bottled milk. The minimum price for pasteurized bottled milk is fifteen cents per ounce, and the minimum price for frozen milk is twenty-five cents per ounce. Physicians are asked to set a higher price when possible so that the station may meet its overhead expenses and eventually serve those in the lower wage brackets at a price under the present minimum. If these plans succeed, the station will be able to supply all who need it.

A graduate nurse who is in charge of the station and has the nursing care of premature babies in the Indianapolis City Hospital has been added to the station's staff by the St. Margaret's Guild. The medical work is under the supervision of Dr. Frances Brown.

AVAILABILITY OF MILK SUPPLY

There is a large group of mothers who contribute their milk to the station and a sufficient quantity of milk is provided to care for any ordinary demands. There is a supply of fast frozen milk available to take care of any emergency out-of-town requests for milk. Requests should be addressed to the Mothers Milk Station, Indianapolis City Hospital, Indianapolis, Indiana.

ABSTRACT

VAGINAL TAMPONAGE FOR CATAMENIAL SANITARY PROTECTION

LLOYD ARNOLD and MARIE HAGELE, Chicago (*Journal A. M. A.*, March 12, 1938), determined the efficiency of tampons in collecting the catamenial discharge of ninety-five normal women. Three different makes of tampons were purchased and used in the experiments. Tampons A and C increased in size when placed in fluid in an unconfined space. Tampon B retained its original size under the same conditions. The subjects included housewives, clerks, factory workers, laboratory technicians, nurses, physicians, artists and business executives; the ages varied from 18 to 46 years. The degree or relative efficiency of the tampons was determined by grouping the amounts of catamenial discharge, in grams, absorbed by the protecting sanitary pads; that is, the amounts of exudate which passed the inserted tampons. Tamponage has been advocated and advised for protection during the last part of the period. Eight women did not need the protecting pad, since tampons afforded complete protection. Eighty-seven (91.6 per cent) needed more protection than was provided by any of the three types of tampons used. Seventy-seven (81.1 per cent) women could have used tampons alone during the last part of their period.

SOME SURGICAL PRINCIPLES IN THE TREATMENT OF INFECTIONS OF THE HAND*

SUMNER L. KOCH, M. D.

Chicago

In spite of the long continued and effective efforts of Kanavel to establish a sound basis of anatomical facts and accurate clinical observations for the treatment of infections of the hand, such treatment in general practice still falls far short of what might be accomplished by a more alert and intelligent interest in the problem. If every member of this society would make it his special task to stimulate interest in this subject in his own hospital and to teach his interns and students accurate and correct surgical methods, a tremendous saving could be accomplished, not only of hospital days, of time and money, but most important, of function for individuals whose hands are their livelihood.

A brief survey of some important factors that make for success may be of help. In the *prevention* of infection following injury it is my firm belief that nothing is more effective than soap and water cleanliness achieved with thoroughness and with sufficient gentleness to avoid injury of delicate tissue cells. Our experience has convinced me that the theoretically sound method of carefully and thoroughly cleansing open wounds with soap and water, and abstaining from the use of tissue destroying antiseptics is successful in actual practice.

Dr. Michael Mason and I see the injured cases from a small metal manufacturing company near our hospital. The injuries are usually not serious—cuts, lacerations, puncture wounds with drills—but some have been cutting wounds three inches in length with profuse bleeding, and in several cases digital tendon sheaths have been opened without division of the tendons. In none of 20 cases seen since January 1, 1935, has infection developed; every case has been carefully cleansed with plain white soap and sterile water applied with soft cotton and gloved hands. Open wounds have been accurately closed with sutures and without drainage. The only infected wounds we have seen among the workmen from this company have been in patients who did not report a trivial injury for 2, 3 or 4 days and came to us with an infection well under way.

Dr. William O'Neill Sherman of the United States Steel Corporation has told me that a similar method of treatment is employed in the plants of the Steel Corporation, and of 12,000 cases of compound injury seen each year less than 1 per cent become infected.

When infection has taken place and before localization has occurred, whether it presents itself as a rapidly spreading lymphangitis with little local reaction about the site of injury or as a diffuse cellulitis, there is nothing more important than aiding localization of the infection with a large, warm, wet sterile dressing, kept at an even temperature by the aid of external heat. To help mobilize the defensive elements of the blood stream by maintaining a maximum blood supply to the part and to aid the return circulation by elevation of the limb seem only simple common sense. X-ray treatment, given as a half erythema dose over the affected area as early as possible, and repeated in 48 hours, we believe to be definitely helpful. The application of ice packs to an infected area suggests a complete disregard of the mechanism which nature has developed to combat infection.

To continue conservative treatment in the presence of an acute spreading infection until one is certain that localization has occurred often requires courage, particularly when anxious parents and relatives are urging that "something be done." Not infrequently the surgeon is persuaded to incise an area of spreading infection before he is certain that localization has taken place, and the result is invariably an unfortunate one. Usually a severe reaction takes place; a sudden chill and rise of temperature usher in a more rapid extension of the infectious process, and too often in severe cases nothing can then be done to halt its spread. The eventual result is a fatal septicemia and pyemia. To avoid active surgical interference and to keep the affected part at rest until one is certain that localization of the infection has taken place are cardinal rules in good surgical practice.

When localization has occurred it is important to recognize its exact site. A felon, a paronychia, a subcutaneous infection on the palmar surface of a finger, a collar button abscess, a sub-fascial infection of the palm, a tendon sheath infection, an infection of middle palmar or thenar space all have definite and characteristic signs—neither difficult to remember nor difficult to interpret. For each condition there is one best method of approach for securing adequate drainage with minimum risk of immediate injury or of subsequent loss of function. An accurate diagnosis of the site of localization is an essential requisite for efficient surgical treatment.

When operative incision is indicated certain details are of great importance in insuring the most satisfactory outcome. A bloodless field secured with the help of a blood pressure band, inflated to a pressure of 250 mm., is one of the most helpful aids available in the surgery of the extremities. A general anesthetic avoids further damage of tissues whose resistance is already markedly impaired, and permits the surgeon to work with deliberation and exactness. Avoidance of injury of important structures, particularly digital nerves and blood vessels, and certainty that one has made

* From the Department of Surgery, Northwestern University Medical School. Read at the annual meeting of the Indiana State Medical Association, French Lick, Indiana, October 5, 1937.

an adequate incision are only possible if one can work deliberately on a relaxed extremity and upon tissues unobscured by persistent bleeding. Gentle soap and water cleansing of the operative field eliminates the injury of the skin caused by powerful chemicals such as tincture of iodine, an injury which is intensified by subsequent application of a warm wet dressing.

Incisions should be made parallel to normal flexion creases or where flexion creases are absent, and never across them. To incise a finger, for example, in the median line of the palmar surface is to invite the deformity that results from subsequent contraction of the scar; and if the tendon sheath is opened through such an incision the taut tendon immediately tends to herniate from its sheath. On the other hand one cannot secure adequate drainage of an infected tendon sheath through small incisions opposite each phalanx. Inadequate incisions simply lead to delay in recovery and so predispose to destruction of tendon and of bone—the two complications one wishes particularly to avoid. In the palm the flexion creases are particularly well marked and incisions should always be made parallel with them. In the forearm medial or lateral incisions invariably give the most direct access to the sites where infectious material accumulates and the least risk of injury of important nerves and tendons.

After drainage has been instituted the affected part must be kept at rest. Warm wet dressings are applied to help mobilize the defensive elements of the blood stream and to favor drainage. When signs of passive congestion appear the continuous wet dressing is discontinued and the part soaked once or twice daily for twenty minutes in sterile water or salt solution. Between "soakings" the part is dried under a light or baker. It is carefully immobilized in a light but efficient splint between dressings.

If infection persists unduly after drainage has been instituted it suggests the presence of a foreign body, most often necrotic tendon or a bony sequestrum. It should be removed, but with care not to injure living tissue. To scrape a bone which has been diagnosed as the site of an osteomyelitis is comparable to scraping the wall of an abscess cavity which represents nature's effort to limit the infection. Such treatment simply prolongs the disease process or results in death of the bone. On the other hand, if surgical treatment is limited to careful removal of the foreign body and adequate drainage of the soft parts, recovery will be accelerated.

Along with adequate drainage of the soft parts must go cleanly surgical treatment. It is my belief that no one factor is so often responsible for delay in recovery as the lack of simple surgical cleanliness in the days following operation, and, as a result, the addition of further infection to the open wound.

Finally, the importance of restoration of function must be kept in mind from the outset. Often

in his anxiety to overcome the infectious process and secure wound healing the surgeon ignores the question of subsequent function and the patient leaves his care with a disability that persists for weeks and months, a disability that might have been very greatly diminished by more thoughtful care during the early weeks of treatment.

54 EAST ERIE ST.

ABSTRACTS

ELEVEN DEATHS FROM CANCER TREATMENT

Eleven deaths, following an injection treatment for cancer (the preparation apparently grossly contaminated with tetanus toxin), have been reported up to April 5, 1938 (*Journal A. M. A.*, April 9, 1938). One person is seriously ill and two others are mildly ill. The cancer treatment used was R_x series 152, prepared by the Biochemical Research Foundation of the Franklin Institute, Philadelphia, Ellice McDonald, M.D., Director. Dr. McDonald has for some time been interested in the product for cancer called "ensol" and R_x is understood to be a product of the type of "ensol" made with a special substrate of cancer tissue. The "ensol" treatment for cancer was first launched in October 1935 by Dr. Hendry C. Connell of Kingston, Ont. At that time, *The Journal* published a warning. Investigations by the United States Public Health Service and the Food and Drug Administration are proceeding in an endeavor to fix the responsibility for this tragedy.

CONTRACEPTION IN PRIVATE PRACTICE: A TWELVE YEAR EXPERIENCE

In the twelve years that ended in 1936, LOVETT DEWEES, Ardmore, Pa., and GILBERT W. BEEBE, New York (*Journal A. M. A.*, April 9, 1938), gave contraceptive advice to 884 white patients. One fourth of these were of the premarital group. About 94 per cent of all the patients advised have been given the occlusive vaginal diaphragm with jelly. Therefore, the discussion is essentially a report of the use of that method. The 884 patients have been predominantly from upper middle class homes of Protestant background, and college trained or the equivalent. Analysis of the experience of the 662 patients who have been followed up indicates that: 1. The acceptance rate of the diaphragm and jelly method was 83 per cent—high enough to justify its routine prescription in private practice and low enough to illustrate the need for other prescriptions to a significant minority. 2. The chance of unplanned pregnancy, while relying wholly or partly on diaphragm and jelly, may be stated as six pregnancies per hundred woman-years of exposure for this group. This rate represents a reduction of from 93 to 96 per cent in the risk of pregnancy incurred by women habitually practicing no contraception. 3. Half of the eighty-six unplanned pregnancies followed errors or omissions that might account for conception. 4. The successful use of diaphragm and jelly did not retard conception after the method had been set aside for planned conception. The time required for conception was reported for 136 of the 167 pregnancies known to have been planned. Half were conceived within one month and three-fourths within three months.

RENAL FUNCTION TESTS IN MEDICAL PRACTICE *

A. C. CORCORAN, M.D.†

INDIANAPOLIS

The growing incidence of diseases of the so-called cardio-vascular renal group is well known. Modern medicine, in prolonging the expectation of life, has brought more people to the age at which these conditions take their heaviest toll. This achievement carries a new responsibility in that the physician must take a deeper interest in cardio-vascular-renal disease. As nearly all patients of this group will show at autopsy evidence of renal damage, clearly, an accurate knowledge of the state of the kidneys during the life of the patient will be of value in the diagnosis, prognosis and treatment of an increasing part of the patient population.

Numerous tests of renal function have been developed. Their number, complexity and, in certain cases, their doubtful status have discouraged many physicians from using them. The purpose of this paper is to review those tests which are simple enough for general use and accurate enough for clinical purposes.

RENAL FUNCTION

The kidney is essentially an extension of the circulation into an odd capillary bed, the glomerulus. The crystalloid, non-protein elements of blood plasma filter through the walls of the glomerulus, much as they do through any other capillary. The fate of the glomerular filtrate differs from that of any other capillary filtrate in that it has an eventual access to the outside of the body. But, if the glomerular filtrate were voided as it is formed, enormous quantities of water and other substances essential to life would be lost, and the kidney would rapidly destroy the constant composition and reaction of the blood which it should maintain. The glomerular filtrate must, therefore, be modified before it is voided as urine.

This modification of glomerular filtrate occurs in the tubule system. The cells of the renal tubules respond to very slight alterations in the composition and reaction of the blood by corrective modifications of their activity. The formation of urine from the glomerular filtrate is influenced by the tubules in at least two ways. The one consists in the selective reabsorption of water and of substances dissolved in water. The other consists in the secretion of certain materials into the urine.

Thus, urine is formed by three major processes, namely by *filtration* of the crystalloid elements of blood plasma through the glomerulus and subsequent modification of the glomerular filtrate by tubular *secretion* and *reabsorption*. An adequate

test of renal function must be based on these facts and should measure at least one of these modes of renal activity.

ALBUMINURIA

Injury to the glomerular membrane may alter its permeability so that substances filter through which are normally retained in the blood. The most obvious of these is plasma protein, chiefly albumin, which appears in the urine as an indication of glomerular damage. However, the presence and extent of albuminuria does not depend upon a change in the rate of filtration, reabsorption or secretion and, consequently, does not provide a measure of renal function, although it suggests the need for such a test. Thus, one might take as an example the not uncommon case of advanced chronic nephritis whose glomeruli have nearly all been destroyed. Those which remain are damaged and allow protein to filter through. But, as they are few, and as urine necessarily formed by such a kidney is dilute, the albumin which appears in it is scanty.

CONCENTRATION TEST

Nearly all the water present in the glomerular filtrate is reabsorbed in the tubules before urine is formed. Urine is, therefore, a concentrated solution. The process of concentration by reabsorption requires work on the part of the kidney, just as filtration requires work on the part of the heart. The diseased kidney finds this work difficult. As nephritis progresses, the kidney is forced to be less and less sparing of water and the urine becomes increasingly dilute.

The specific gravity of a solution is a rough measure of its concentration of dissolved substances. If three conditions are met, the measurement of urine specific gravity serves as an accurate index of the concentrating power of the kidney. First, the kidney must be put under a strain, so that it is working as hard as it can. This is done by giving the patient a minimum amount of water during the period of the test. Second, the conditions of the test must be so standardized that the results will be consistent. Third, as the intention is to measure the solutes present in urine, a suitable correction is applied in the calculation when urine protein affects the measurement. Thus the aim of the test is to measure the maximum concentrating power of the kidney under standard conditions by means of the maximum non-protein specific gravity. Properly performed, this determination is an extremely sensitive test of renal function.¹ One of the most convenient tests of this type is the concentration test of Addis and Shevky.²

† From the Lilly Clinical Research Laboratory, Indianapolis City Hospital.

* Presented before the Grant County Medical Society, October 28, 1937.

1 Alving, A. and Van Slyke, D.D. The significance of concentration and dilution tests in renal disease. *J. Clin. Invest.* **13**:969 (1934).

2 Addis, T. and Shevky, M.C. A test of the capacity of the kidney to produce urine of high specific gravity. *Arch. Int. Med.* **30**:559 (1922).

TECHNIC

The patient abstains from fluid of all sorts from after breakfast of one day to breakfast of the morning of the following day. The urine is collected during the last twelve hours (8 p. m. to 8 a. m.) of the twenty-four-hour dry period. The specific gravity of the specimen is then measured.

The measurement of specific gravity is made either with the ordinary urinometer or with the more sensitive modification of the Westphal balance developed in the laboratory of Dr. D. D. Van Slyke. The value obtained is noted as the maximum uncorrected specific gravity. This value is so called because it is not yet corrected for the effect of protein in the urine on the measured specific gravity. Each one per cent of protein causes an increase of specific gravity of about 0.003.² The correction is significant in cases in which urine protein content is high. The estimation of urine protein may be made by the modified method of Shevky and Stafford³ or by some less accurate but more convenient method such as that of Esbach or Tsuchiya.

The measurement of urine protein in terms more precise than plusses and queries gives additional clinical information. The presence of severe proteinuria suggests that the patient is suffering from the nephrotic stage of Bright's disease or from nephrosis. In either case the plasma protein is being drained into the urine and, losing it, the patient shows an increasing tendency to edema. The elimination of salt will in some degree protect the patient from edema. However, it is also desirable to replace the loss by adding extra protein in the diet. The amount of protein present in the urine is an index of the minimum amount which the patient requires over a normal adequate ration.^{4, 5}

The range of normal variation of maximum non-protein specific gravity in the Addis-Shevky test is from an average of about 1.032 to a minimum of 1.026. In ninety-five per cent of normal subjects it is higher than 1.028. With progressive renal disease the concentrating power falls to values of 1.008 to 1.012. This failure often appears weeks or months before the patient is finally bedridden. The most sensitive index of renal damage is consequently of value only when the function of the kidney is not too seriously disturbed. Another factor limiting the application of this test is that when water metabolism is disturbed, as in diabetes insipidus, or when the body tissues contain an excess of loosely held fluid, as in cardiac edema, the kidney will excrete urine of less than maximum specific gravity.

² Peters, J. P. and Van Slyke, D.D. *Quantitative Clinical Chemistry*, Vol. II. Methods. Williams and Wilkins, Baltimore, 1932.

⁴Page, I. H. The management of acute, chronic and terminal Bright's disease. *Med. Clin. North Amer.*, p. 867 (1934).

⁵Page, I. H. The genesis and treatment of edema in Bright's disease. *Med. Clin. North Amer.*, p. 1831 (1937).

UREA CLEARANCE

These disadvantages of the concentration test emphasize the need for a test of renal function which, if not quite as sensitive, will be largely independent of water output and will cover the whole range of renal damage. This need is met by the urea clearance. It is based on the following facts:

The normal adult human being when forming urine in fairly abundant amounts excretes each minute the urea contained in about 75 cc. of his blood. Normally, he appears to *clear* all the urea from 75 cc. of blood. Thus, one may suppose a normal person whose blood urea nitrogen is 15 mgm. per cent, is forming urine at the rate of 2 cc. per minute with a concentration of 563 mgm. per cent urea nitrogen. The 2 cc. of urine formed each minute contain 11.26 mgm. urea nitrogen ($563/100 \times 2$). The excretion of 11.26 mgm. per minute is equivalent to the excretion of all the urea contained in 75 cc. of blood when the blood contains 15 mgm. per 100 cc. of urea nitrogen, or 11.26 mgm. in 75 cc. of blood ($11.26/15 \times 100$). Formulating the concept when B is the concentration of blood urea, U the concentration of urine urea, and V the volume of urine in cc. per minute, one arrives at the formula $U/B \times V$ or UV/B as the urea clearance in cc. per minute. In our example $(563 \times 2)/15 = 75$ cc. of blood apparently cleared of urea each minute. This is an average normal value. The clearance may be expressed in per cent of normal if the value in cc. per minute cleared is multiplied by 100/75 or 1.33. Hence $UB/V \times 1.33$ represents the per cent normal clearance when V exceeds 2 cc. per minute. At lower urine flows the efficiency of urea excretion decreases and the clearance decreases with the urine volume, approximately as the square root of the volume. At these lower values the clearance is

calculated as $\frac{U}{B\sqrt{V}}$ to obtain clearance in cc. per

minute ("Standard urea clearance"). At 1 cc. per minute the normal average value is 54 cc. per minute. As before, the percentage normal is calculated by multiplying the observed clearance by a factor derived from the average normal, in this case 100/54, or 1.85.

A clearance of 75 cc. per minute at abundant urine flow does not imply that only 75 cc. of blood is passing through the kidney each minute, losing all its contained urea on the way. Actually, more than 750 cc. of blood perfuse the kidneys each minute, losing about 10% of its urea. But, as the proportion of urea removed from the blood is fairly constant, the urea clearance is a rough measure of the renal blood flow.⁶ The rate of renal blood flow is almost inevitably reduced in most conditions which cause sufficient kidney dam-

⁶Van Slyke, D.D., Rhoads, C.P., Hiller, A., and Alving, A. The relationship of the urea clearance to the renal bloodflow. *Am. J. Physiol.* **110**:387 (1934).

age and, because it measures this change, the urea clearance is a test of renal function applicable from health through all phases of kidney damage to uremia.

TECHNIC

The chemical determinations necessary for the determination of urea clearance consist in the estimation of the urea content of blood and urine. These determinations are best done in laboratories equipped for the purpose. The physician should find no difficulty in having these determinations made at his local hospital laboratory. The details of the technic and calculation may be found in Peters and Van Slyke's book.⁷ Consequently only that part of the technic which concerns patient and physician will be described in detail.

There is no special preparation of the subject. He should, especially in the presence of advanced chronic nephritis, recline comfortably during the period of the test. The clearance may be determined at any time of day, in any relation to meals.⁸ As a free flow of urine is desired, the subject is usually given a glass or more of water at the beginning of the test and again at the mid-period.

The urine collection consists of two specimens taken over measured periods of about one hour each, or during such time as will allow the formation of 50 cc. or more of urine. The time interval, whether one hour, or more, should be carefully measured from the time the subject empties his bladder to the end of the collection. About the mid-period between the collections of urine, the blood (about 10 cc.) is taken into a tube containing an anticoagulant such as potassium oxalate. It is important that no urine is lost before the volume of the specimen has been measured. The analyses should be done with a minimum delay.

The essentials in performing the test are to secure *first*, a sufficient volume of urine, namely about 50 cc. or more in each specimen, *second*, complete emptying of the bladder and collection of all the urine in an accurately measured period of time. Patients who have residual urine, or in whom complete collection of the urine is impossible, cannot give accurate urea clearances. This fact would apparently exclude a large group of urological and gynecological cases from the advantages of the test. However, the determination of the urea concentration factor (U/B) under conditions which secure a low rate of urine flow at about 1 cc. per minute is a satisfactory substitute for the clearance. The value obtained normally will approximate the "standard urea clearance" value of 54 and will range from 44 to 65. The proper rate of urine flow may be obtained by for-

bidding the subject fluid for twelve hours before the test. The urine is collected over two periods which may be about one hour each, but need not be carefully measured. Blood is taken at the mid-period. The decrease of U/B ratio in renal disease will parallel the change in urea clearance when the test is performed under conditions which allow a low and constant flow of urine.

INTERPRETATION

The result of the clearance is expressed in per cent of normal function. The normal adult will show a variation in clearance of from 70 to 130 per cent of normal. This variation is an indication of the normal elasticity of renal function and disappears when renal damage decreases the urea clearance.

The most important extra-renal factor influencing the urea clearance is the state of the general circulation. Because the clearance measures the rate of renal blood flow, those extra-renal reductions of renal blood flow which occur whenever the general circulation is failing, as in heart failure or in shock, decrease the clearance. The continued use of diets low in protein may extend the lower limit of normal variation to 50 per cent of normal.⁹

The interpretation of the urea clearance in the various types of renal disease is not difficult. In acute nephritis the clearance may remain normal, or may fall even to a tenth of normal, although such a fall does not exclude recovery. However, unless the clearance which has fallen in acute nephritis begins its return to normal before the end of the fourth month of the disease, recovery is not usual. The fall in clearance in chronic nephritis appears to be proportional to glomerular destruction and is, therefore, largely irreversible. However, these patients often remain at work in comparative comfort until the clearance has fallen below 10 per cent of normal. When the clearance has fallen to 5 per cent of normal, uremia is imminent. These relations of clearance and prognosis hold whether the disease is hemorrhagic, nephrotic or hypertensive in type. Clearances reduced by back pressure, as from an enlarged prostate, or by acute infection, usually return to nearly normal values if the condition has not been so prolonged or severe as to cause irreversible changes in the kidneys. Cases of true nephrosis or of nephrotic Bright's disease may at times maintain a normal clearance in the presence of severe proteinuria. Presumably, the kidney damage has not progressed to an alteration of renal blood flow. However, as in essential hypertension, where the clearance may remain normal for many years, the concentration test will usually show a decrease of concentrating power of the kidneys.

The combined use of urea clearance and concentration tests will cover the course of renal damage

⁷ Peters, J. P. and Van Slyke, D.D. Quantitative Clinical Chemistry, Vol. I. Interpretations. Williams and Wilkins, Baltimore, 1931.

⁸ Page, I. H. The action of certain diuretics on the function of the kidney as measured by the urea clearance test. *J. Clin. Invest.* **12**:737 (1933).

⁹ Cope, C. L. Studies of urea excretion VIII. The effect on urea clearance of changes in the protein and salt content of the diet. *J. Clin. Invest.* **12**:567 (1933).

from its incipience. Routine examinations of urine in the usual manner are of comparatively little value in the prognosis and treatment of renal disease, for neither the amount of albumin, the number of red cells nor the number and character of the casts are indices of renal function. The determination of urine specific gravity without reference to the patient's fluid intake is almost worthless. On the other hand, two or three concentration tests and clearances over a year will provide the physician treating chronic renal disease with nearly precise information as to what the kidney is doing and what the patient may expect. The expense and trouble to patient and physician should not be greater than that of repeated urine examinations during this period. The reward will be far greater.

OTHER TESTS OF RENAL FUNCTION

The phenolsulphonphthalein two-hour excretion test is sometimes recommended as a general purpose test of renal function which may be done by the physician in his office. Actually, where accuracy is essential, the technic is not easy. The results obtained by this test will not be as satisfactory as those obtainable by the urea clearance test alone in a group of cases, because phthalein excretion is not depressed in *all* cases until the urea clearance has fallen below 20 per cent of normal.⁷ Indeed, only about one-half of a group of cases with 50 per cent normal clearance will show abnormal phthalein tests. Where residual urine or other defect makes the clearance unsatisfactory, the phthalein test is also excluded. For these reasons, the two-hour phthalein test has been modified to include an excretion period of only fifteen minutes after the injection of the dye.¹⁰ The physical margin of error is thus considerably increased although it is stated that the sensitivity of the test is greater. Neither phthalein test has much to recommend it where ordinary laboratory facilities are available.

The current literature contains many references to the clearances of other substances than urea. Obviously, any substance which is present in the blood and excreted in the urine will have a certain renal clearance. The concept has thus been applied to creatinine, sucrose, xylose, inulin, phenol red and to hippuran and diodrast. The clearances of these substances have been studied with a view to scientific rather than clinical value. The aim in one series, that comprising creatinine, sucrose, xylose and inulin has been to measure the rate of glomerular filtration by means of a substance which appears in the urine as a result only of filtration and which is neither secreted nor reabsorbed in the tubules. The phenol red and organic iodine compound clearances have been studied in attempts to measure the rate of tubular

secretion. The investigator can in a sense separately and simultaneously measure changes in glomerular and tubular function by means of a combination of these clearances such as phenol red and inulin. Clinically, these tests have no advantage over the urea clearance and are more cumbersome, more exacting and less standardized.

Changes occur in the blood during renal disease which are, in a sense, indices of renal damage. These consist in the retention of certain end-products, notably urea and non-protein nitrogen, and in the deficiency of other substances, particularly hemoglobin and total protein. However, the determination of urea or non-protein nitrogen is not a sensitive test of renal function. The values obtained with these tests do not become clearly abnormal in all cases until the urea clearance has fallen to less than 20 per cent of normal.⁷ The same applies to the determination of creatinine and uric acid. As none of these determinations is technically much more convenient than the determination of urea clearance, they should not be substituted for the clearance as measures of renal function.

The estimation of hemoglobin has its value in cases of advanced chronic nephritis. The hemoglobin often falls relatively early in the disease and, once the clearance has fallen to about 20 per cent of normal, the anemia usually parallels the urea clearance.

The deficiency of plasma protein is most severe in the nephrotic stage of Bright's disease and in nephrosis. These cases are characterized by profuse proteinuria, low plasma protein content and a tendency to edema and ascites. Edema is nearly always present when the plasma protein falls below 5.3 per cent. The specific gravity of the plasma at this critical level is about 1.023. This fact has been used by Dr. I. H. Page in developing a simple test for plasma protein content, easily available in office practice.¹¹ The test consists in dropping a drop of the plasma from a pipette held above a tube containing an immiscible liquid of specific gravity 1.023, either fluorobenzene or a suitable xylene-chlorobenzene mixture. Plasma of specific gravity 1.023 (total protein content 5.3 per cent) falls slowly to the mid-point of the tube. Plasma of higher protein content falls to the bottom, while plasma of lower protein content rises to the top. The test, apart from indicating the imminence of edema in cases at the critical level, is an aid in the differential diagnosis of cardiac edema from those types of edema caused by deficient plasma protein.

The author wishes to express his gratitude to the John and Mary Markle Foundation for a grant in connection with work on experimental renal hypertension.

¹⁰ Chapman, E. M. and Halstead, J. The fractional phenolsulphonphthalein test in Bright's Disease. *Am. J. Med. Sci.* 186:223 (1933).

¹¹ Page, I. H. A simple test for plasma protein content below the edema-producing level. *J. Am. Med. Assoc.* 99:1344 (1932).

AN APPRAISAL OF VISUAL DEFECTS OF CHILDREN IN INDIANA*

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Four hundred forty-seven people, mostly children, were tested for visual defects at the Indiana State Fair, by means of an instrument devised by Emmett A. Betts, called a "telebinocular stereoscope." The instrument, which is merely a modification of the stereoscopes formerly found in most homes 30 years ago, utilizes both eyes during the examination instead of one eye as in the Snellen card test. Instead of seeing something like a picture of Niagara Falls in the winter time, the patient is shown a series of slides consisting of chiefly geometric figures which make the more common visual defects manifest. In a period of approximately five minutes, it is possible to determine whether an individual has mono or binocular vision (Test No. 1), proper fusion of images at far distances (Test No. 2), normal visual acuity (Test No. 3), vertical imbalance (Test No. 4), stereopsis (Test No. 5), lateral imbalance (Test No. 6), proper fusion of images at near distances (Test No. 7), and astigmatism (Test No. 8).

The cards used in the test were so constructed that the interest of individuals, as school children, would be instantly aroused and maintained throughout the test. It was found that there were few individuals who did not enjoy taking the test. During the examination each individual tested was checked carefully on a special score sheet, and at the end of the test could be graded quickly and easily. Although there were eight main tests, some had several parts, making eleven in all. Each test was given equal importance in grading.

In rating the vision of people, it was kept in mind that few eyes are perfect and that so-called normal eyes have some slight errors in their make-up. Therefore, it was considered that anyone who made a score of 91% or better has essentially normal eyes and anything less was considered as subnormal. These latter individuals were given slips showing what tests they failed or passed, and also were advised to see a competent eye physician, or oculist, for a more thorough eye examination.

It was found that many people would have made a perfect score except for tests No. 2 or No. 7, which they failed, giving them a score of 91%. Failure of these tests is no indication of a physical defect of the eyes, but merely indicates a failure on the part of the patient to learn to fuse his images properly. In other words, the eyes are not organically defective. They simply have not been

trained properly. Just as one must learn to walk, so must one learn to coordinate his eyes properly.

Of the 447 people tested, 27 were women, 51 were men, 190 were boys, and 179 were girls. Eight of the women had normal vision, while 19 were below normal. Eighteen of the men had normal vision, and 33 were subnormal. Among the boys, 67 had normal vision, and 123 were subnormal. Sixty-eight of the girls had normal vision, while 111 were below normal. In general, it was found that about 1 out of every ten persons passed the test perfectly, excepting among the boys where about 1 in 7 passed perfectly. It was learned that 43.8% of the people who were tested had defective vision, if one allowed 91%, or one failure, to pass as normal. If one considered only 100% score as normal, then only 12% passed, or in other words, 88% showed defective vision. Further analysis of the data revealed that the boys and girls who failed to pass certain tests, failed the tests in a corresponding way. (See Table No. 1.) That is, most of them failed to pass Test No. 6, the next greatest number failed to pass Test No. 2, then Tests Nos. 3, 7, 5, 8, 4, and finally No. 1.

Table No. 1

TABLE SHOWING THE RATING OF THE TESTS FAILED.
Order of Rating 1 2 3 4 5 6 7 8

	Number of Tests							
Girls	No. 6	No. 2	No. 3	No. 7	No. 5	No. 8	No. 4	No. 1
Boys	No. 6	No. 2	No. 3	No. 7	No. 5	No. 8	No. 4	No. 1
Men	No. 2	No. 3	No. 7	No. 8	No. 5	No. 6	No. 4	No. 1
Women	No. 2	No. 7	No. 3	No. 8	No. 5	No. 6	No. 4	No. 1

The adult groups showed a similar correlation. Most of the adults failed to pass Test No. 2, then Tests No. 3 or 7, then Tests Nos. 8, 5, 6, 4, and finally No. 1, showing that the common eye defects for all the groups, viz., men, women, boys, and girls are lateral imbalance, failure to fuse visual images, diminished visual acuity and astigmatism. In general, one can say from this survey by means of the telebinocular stereoscope, that children suffer chiefly from muscle imbalance, failure to fuse images at far and near distances, and diminished visual acuity, whereas the adults have the main defects of failure to fuse images at far and near distances, diminished visual acuity, and astigmatism. Muscle imbalance does not predominate among adults as in children. Astigmatism seems to play a more important part in the visual defects of adults than in children.

In 1934 a visual test was conducted by the Indiana State Medical Association, chiefly to uncover color blindness. Some of the persons taking those tests were also tested for visual acuity, using the Snellen test. It is interesting to note what was found concerning the latter. The results were as follows: 50% of the males (232) had normal vision in both eyes, (normal being 20/20); 28.4% had impaired vision in both eyes; and 21.5% had normal vision in one eye and impairment in the other. In the females (139) 42.0% had normal

* A report on the data obtained by the Indiana State Medical Association at the Indiana State Fair—years 1934 and 1937.

† Work done under the sponsorship of the Bureau of Maternal and Child Health of the Indiana State Board of Health.

vision in both eyes, 36.5% had impaired vision in both eyes, and 21.5% had normal vision in one eye and impairment in the other. In an article written of the results of those tests, it was stated that there were many instances of children who showed marked visual impairment. Our results in 1937 not only confirm this statement, but are even more emphatic since the method used this year was more comprehensive and covered a larger group of school children. The tests in 1937 detected more than just diminished visual acuity. This probably explains, in part at least, the higher percentage of visual defects obtained with the Betts test than with the Snellen test.

SUMMARY

In a series of 447 men, women, girls, and boys tested for visual errors by means of the telebinocular stereoscope, it was found that approximately 9 out of every 10 persons, or 88%, did not have perfect vision. Most of these defects were found to be of the nature of lateral imbalance, failure to fuse visual images at far and near distances, diminished visual acuity, and astigmatism. While lateral imbalance predominates in the children, it was found rather infrequently in adults. In the latter group astigmatism was one of the more common errors, while among children it was not met so often.

As a result of the visual test this year, conducted on a more comprehensive scale than the ones in 1934, and chiefly on school children, and also as a result of that survey, there seems to be only one general conclusion—that the majority of persons have some visual defect in one form or another, and that corollary to this, when applied to children, is plainly evident and decidedly important.

As a result of this survey, it was found that children and adults were not aware of their visual weaknesses. These individuals were fortunately enlightened as to their condition, and advised to consult an eye physician. The test served in many cases to satisfy the parents' minds as to whether their children needed glasses. Especially was this true when they could see the apparent difficulty of the youngster in attempting to answer the examiner's questions properly. Many persons were made "eye-conscious" by this test, particularly the parents who may or may not have been aware of the condition of their children's eyes. In either case, the test served a useful purpose, and undoubtedly many boys and girls were benefited by the exposure of their visual defects.

CONCLUSION

This type of screening out of visual defects in children should be of value as a general public health procedure. In this way the early recognition of the visual defect is called to the attention of the parent and teacher. The patient, therefore, is referred to his physician at an early date, thus

instituting correction of a physical defect before the child is handicapped in his progress in school, or before refractive errors increase.

ABSTRACT

EPIDEMIC DIARRHEA OF THE NEWBORN

WILLIAM H. BEST, New York (*Journal A. M. A.*, April 9, 1938), states that from July 1934 to the end of December 1937 twenty-seven outbreaks, comprising nineteen different hospitals, have been investigated. In these twenty-seven outbreaks the postnatal course of 5,082 live born babies has been followed. Of this total, 750 developed the disorder, a morbidity rate of 14.7 per cent. Of the 750 babies attacked, 356 died, making a mortality rate of 7 per cent and case fatality rate of 47.5 per cent. There is a symptom complex of a severe intestinal toxemia with acute onset, accompanied by drowsiness, watery yellowish stools, abdominal distention, marked dehydration, rapid loss of weight and shock. This disorder seems definitely limited to the new-born period, the susceptible age being up to 4 weeks. Contacts discharged home from the affected nurseries and later becoming ill were returned to the hospital and admitted to the regular pediatric ward. At no time did the condition spread to older children in the ward. In no instances have the adult attendants in the affected nurseries become infected. Sick infants discharged home as well as babies becoming ill at home after discharge have in no instance communicated the infection to older members of the family. Bacteriologic investigation has thus far failed to reveal a common etiologic agent. In routine cultures of nasal and pharyngeal secretions and of stools of sick babies and mothers and adult maternity service personnel, a common organism among the sick babies or an organism common to both the adults and the sick infants could not be isolated. This severe intestinal toxemia produced little pathologic change. While some congestion of the superficial vessels in the bowel, congestion of Peyer's patches and occasional hemorrhagic areas were noted, no constant characteristic pathologic condition, either macroscopic or microscopic, could be established. Otitis media, parenchymatous degeneration of the liver and kidneys, bronchopneumonia and congestion of the dural and meningeal vessels were occasionally found. Measures and procedures customarily employed in communicable diseases constitute the quickest way to control an outbreak. Second, and more important, is to prevent the outbreaks from occurring. This necessitates, in many hospitals, a radical change in the physical setup and the technics in the obstetric and newborn services. Everything coming in contact with the baby's mouth or nose should be in a surgically aseptic condition. After numerous conferences with leading obstetricians, pediatricians, representatives of the county medical societies, the Academy of Medicine and various hospital medical and nursing groups, regulations governing lying-in institutions and nurseries for the newborn were established. These regulations are listed. They are basically sound and indicate the fundamental principles on which a well regulated maternity service should be conducted to the end that not only epidemic diarrhea of the newborn will be controlled but that neonatal morbidity and mortality from other causes may also be reduced.

Did you see Doc Quiz's questions
on page 227?

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MAY, 1938

Editorials

MUST SO MANY DIE?

Correct treatment cannot be applied to disease unless a correct diagnosis is made. Correct dealing with a problem cannot be accomplished until the causes and conditions under which it occurs are understood. Maternal mortality with the associated infant mortality is just such a problem in the United States.

Within the last five years committees have been formed to study this problem. They ask and deserve the support and aid of all persons concerned which includes the medical profession as a whole, the governmental, nursing and welfare groups, and the general public. The committees and organizations are notably the American Committee on Maternal Welfare, the United States Department of Labor¹, the Interdepartmental Committee to Coordinate Health and Welfare Activities of the United States Public Health Service, the Executive Committee of the Board of Trustees of the American Medical Association, which stands ready to cooperate with any governmental agency at any time on health matters, the many representatives of State and City medical groups and Boards of Health, and, of especial interest to us, our Committee of the Indiana State Medical Association for Maternal and Infant Care and the representatives of our Indiana State Board of Health, Dr. Verne K. Harvey, secretary, and Dr. Howard B. Mettel, director of the department of Maternal and Child Health.² All of these organizations ask your

cooperation and help. Every physician has had the opportunity through medical journals and many lay magazines to be informed of the aims of these groups in regard to maternal and infant help. There is an honest and sincere effort to keep the leadership in the hands of the medical profession where it must stay if intelligent work is to be done.

The declining birth rate and the fact that the statistics of maternal mortality have improved little from 1915 to 1935 have increased the importance of every mother and child and make more necessary their conservation. The Federal Social Security Act has made funds available and is giving the medical profession the opportunity to assume this responsibility. If we do not, lay welfare groups will assume it and we will be led rather than lead. Many states have plans actively in effect. In some states the county medical societies have taken over completely the medical care of those unable to pay. American Medicine should be given an opportunity by governmental agencies to show the American people that an American plan can be developed for indigent people which will be better than that used in other countries. In Indiana we have the leadership of the before-mentioned groups. It will take the help of individual medical societies and every individual practitioner to make it successful.

The maternal mortality rate for Indiana in 1936 was 4.5 per 1,000; in 1937 it was 3.4 per 1,000. The infant mortality rate in 1936 was 50.7 per 1,000; in 1937 it was 49.5 per 1,000.

In 1935 the total loss of maternal and infant life for the United States was 161,249 of which 14,296 were maternal deaths (12,544 deaths assigned to pregnancy and childbirth and 1,752 deaths in which pregnancy or childbirth was a complicating factor), 77,119 stillbirths and 69,834 infant deaths in the first months of life, of which 56,262 were due to prenatal and natal conditions. This is not the true story for no doubt many maternal deaths from early abortion are not registered as such, and many stillbirths are not registered at all. Mothers dying as an indirect result of pregnancy and childbirth are registered under other causes with no mention of the main contributory cause such as deaths from nephritis a few weeks after recovery from puerperal eclampsia, deaths from the late effects of puerperal infections, deaths from the degenerative effects of severe hemorrhage, and deaths from intercurrent diseases because of a resistance completely broken down by exhausting labors. It must be remembered that maternal mortality is not the only disorder in which our statistics compare unfavorably with those of other countries. Dr. Emerson classes high maternal mortality along with our high appendicitis, peptic ulcer, goiter and heart disease death rates as due to a chronically over-stimulated autonomic system where exhaustion makes for a lower maternal resistance than normal.

¹ Maternal Deaths. A Brief Report of a Study made in 15 states. No. 221, the United States Government Printing office. Washington: 1933.

² Report on Conference for Better Mothers and Babies. *J. Ind. S. M. A.* p 90, February, 1938.

To obtain more information it is advised by the American Committee on Maternal Welfare³ that birth, death and stillbirth certificates be revised to give this information. An instruction should be included that "Certification must be made for all deaths of females 15 to 49 years of age as to whether the patient was known to have been pregnant or to have been delivered of any product of conception within the three months prior to death." If the answer is affirmative, a detailed report is requested. Similar questions are asked for an infant death certificate to discover the importance of labor on the death of the infant. A death certificate should be filled out conscientiously by the physician signing it and by no other person.

Physicians are asked to recognize and classify all causes of maternal death under one of four headings as: infection, hemorrhage, toxemia, or trauma, with statements as subheads to qualify. Where more than one of these causes is present, the order of precedence should be as given.

Postmortem examinations will increase the accuracy of diagnosis, especially in neonatal deaths where intracranial hemorrhage and pneumonia will take the place of prematurity as the most important causes of deaths. Dr. Bundesen's reports⁴ revealed that the four main contributions to infant deaths are maternal complications, inexpert obstetric care, prematurity, and incorrect or inadequate neonatal care. The understanding of these causes should point out the needed obstetrical care.

Our State Board of Health is sending questionnaires to be filled out to supplement the information on infant death certificates. All conscientious physicians will cooperate in completing these for the general welfare.

Maternal deaths tend to be sporadic in occurrence. Only occasionally is there an epidemic of puerperal sepsis. These single deaths here and there make up the sad total. Since by after-analysis many deaths are considered preventable it is a matter for every physician attending obstetrical cases to tighten up on the carefulness of his technique and watchfulness and to use a little more forethought and have a planned procedure with the necessary equipment for any emergency. Knowing the possibilities of what is likely to happen will help one to be better prepared. Prenatal care will contribute much to being forewarned.

Sepsis will account in the end for nearly one-half of the maternal deaths. Endogenous origin can only account for a very small or even doubtful percentage of these infections. It is best to assume that infection is brought from the outside to the patient. Assuming that the hands of attendants are well scrubbed and gloved, the patient is properly prepared and that instruments and linens are

sterile, the commonest source of infection is no doubt the noses and throats of attendants or relatives. The wearing of face and nose masks by all in attendance at deliveries and for postpartum care will save many lives. *Wear a mask and save a life.* The more the patient is isolated during labor and puerperium the better are her chances of a safe lying-in period. In the presence of infection isolation of the patient and the understanding use of specific serum, small repeated blood transfusions and sulfanilamide will cut down mortality.

The danger of hemorrhage is always present, especially in the well known dangerous multipara. Every practitioner can have at hand pituitary extract, a reliable ergot preparation, a sterile uterine pack and a sterile ready-to-use, self-contained and compact set of intravenous glucose-saline solution, together with an ampule of acacia solution to add if desired, to combat hemorrhage and shock.

One must always be on the look-out for the warning signs and symptoms of eclampsia and be prepared with magnesium sulphate for intramuscular or intravenous use, hypertonic glucose solution, a spinal puncture needle of suitable size and the sedatives of choice.

The conscience of the medical attendant should protect the patient from meddling midwifery and its potential evils. Maternal mortality can be improved by the more judicious use of cesarean section. For the mother's safety we must presuppose adequate opportunity for prenatal care, for intelligent delivery care by an interested physician who in the average case we can feel sure will be her family physician, and for watchful postpartum care. The medical attendant should have the good judgment to call additional help when help is needed. No practitioner should be too proud to call medical or surgical consultation whenever someone else may be able to contribute helpful advice or procedure.

The public has a right to know what constitutes good maternal and infant care and that it can be had if it is desired. It can only be had properly for everyone if all agencies, professional and public, cooperate and if it is directed by the only group competent to direct it, the medical profession.

BLOOD FOR TRANSFUSION

It has been only since the World War that blood transfusion has been a safe and common procedure. It still has its dangerous possibilities, and through carelessness people still lose their lives by the thing which should be life saving. Details of technique must be carefully followed or calamity will be the result. To avoid the latter, two procedures must always be carried out—typing of bloods and cross matching. The methods of doing these are found in every laboratory manual. There are no safe short-cuts.

It is known that recently in two different uni-

³ Revision of Birth, Death, and Stillbirth Certificates. *Am. J. Obst. & Gynec.* 35:2, February, 1938.

⁴ Bundesen, H. N.; Dahms, O. A.; Frohbein, W. I.; and Harmon, G. E.: *J. A. M. A.* 107:270, 1936.

Bundesen, H. N.; Frohbein, W. I.; Dahms, O. H.; and Potter, E. L.: *J. A. M. A.* 109:337, 1937.

versity hospitals of the United States the short-cut of matching bloods without typing them was used and blood given which produced the same results in each case. Type II blood was given to a Type IV recipient causing a severe reaction, anuria, and death. Typing after the transfusion revealed that the bloods were of different types and the matching had actually been interpreted falsely. The tragedy of such an occurrence as it affects all parties concerned—the relatives and the doctors involved—is most distressing. To discover and rectify the error in technique does not right the carelessness or the inadequacy of the persons responsible for the judging of the fitness of the blood, since for years the literature on blood transfusion has insisted that only bloods of the same types should be considered compatible and then only if carefully cross matched. The “universal donor” should be used only in emergency and with the acceptance of responsibility by the physician giving the transfusion.

It may seem reasonable to depend upon matching of bloods alone but peculiarities in bloods cause peculiarities in reactions. While four types of bloods are generally accepted, other combinations of iso-agglutinins and iso-agglutinogens besides the *Aa* and *Bb* pairs have been described. Certain foods apparently affect the reaction of blood. It is best if the donor does not eat for six to eight hours preceding a transfusion. There is evidence that after giving blood too frequently the type of the donor may change. Even when a donor has given blood successfully to a person, it should not be repeated unless matching is done again.

It is startling how many reports may be found of the transmission of syphilis from donor to recipient.¹ Unless it is a question of great emergency, no blood should be used unless the Kline or Kahn is negative. These tests are more sensitive and may be done more rapidly than the Wassermann. The incubation period of syphilis so transmitted is from four to ten weeks. It is manifested by a typical and pronounced roseola.

It is difficult to show that a direct transfusion has advantages over an indirect. If care is taken in using the indirect method to give properly citrated blood and at the proper temperature, there are more chances of its being successful than when the direct is used. There need be no hurry to collect the blood and plenty of time may be taken to get the needle properly into the recipient's vein and see that normal saline solution flows smoothly before any blood is wasted. The blood is introduced more slowly and if there is an incompatibility it is less likely that a large amount will be given before detection than when it is being forced in by syringe-fuls. There is not the expense of a major operating room procedure and the patient is not disturbed from his or her bed. In fact the simplicity of drawing blood from the donor into a flask with the proper amount of citrate and then

turning it upside down and allowing it to run by gravity into the recipient without any further handling or exposure to the air should encourage the use of properly typed and matched blood anywhere and on any occasion that it is indicated. Undoubtedly the giving of blood in the past has been neglected because of the technical difficulties and messiness of the methods recommended. At the present time the simplicity of both the direct² and indirect³ methods should leave little excuse for their not being used whenever needed.

At the beginning of a transfusion the blood should be given very slowly and if any untoward reaction is noticed it should be stopped immediately. Gradwohl states, “In spite of all precautions and all tests, there are certain reactions which apparently are beyond the control of scientific investigations.” However, these do not have serious results unless the bloods are of different types which is not excusable. Patients with fever are more likely to have reactions than are those without fever.

The danger to the donor with the indirect method should be none. With some of the apparatus for direct transfusion it has happened that blood from the recipient has gotten into the donor's blood stream because of faulty ball valves or carelessness of the operator. If the patient should have a septicemia this might be disastrous.

It is only fair that the surgeon who gives a transfusion should satisfy himself that all the requirements for a safe and successful result are fulfilled before the transfusion is begun.

CANCER CURES

Every little while some individual or group breaks into print with the announcement that at last a remedy for cancer has been discovered. It is odd that simultaneous with the professional announcement comes the blah-blah of publicity in the lay press. So often is this true that whenever we learn that Dr. John Doe is preparing to announce to the profession that he has discovered the cause and cure of cancer, we immediately turn to the public press for details. Such events occur with apparent regularity every few years, and the cycle is nearly always the same.

Along in 1935 there came an announcement from Ontario, Canada, where a Dr. Connel gave forth the information that in “Ensol” he had the simon pure treatment. Time, that great leveler of medical knowledge, proved otherwise, and the remedy came to be used only to allay the pain incident to the disease. A sufficient group of physicians persisted in using the drug so that divers manufact-

² Good examples of such apparatus are the Rotunda syringe, the Scannell outfit and the Becton-Dickinson Medical Center Set.

³ a. Dieckmann, W. J., and Daily, E. F.: *Am. J. Obst. & Gynec.* 30:1, July, 1935.

b. The Baxter Blood Transfusion Set.

¹ *International Medical Digest*, 32:3, February, 1938.

urers continued to market the product, and a Philadelphia concern took over certain territorial rights and proceeded to put the material on the market. As often happens (recall the Massengill-Elixir of Sulfanilamide episode?), errors in preparation crept in and the ultimate result was the loss of eleven lives of patients who were treated with the preparation. Recent reports indicate that the deaths were due to tetanus and that the infecting agent apparently was incorporated in the product during the process of manufacture.

"Ensol" was reviewed in *The Journal of the American Medical Association* on October 5, 1935, the editorial stating that the product was without any particular merit as a cure for cancer. Further, it was apparent that not enough clinical investigation was made to warrant any claim that Ensol was the long-sought remedy. On April 9, 1938, the A. M. A. Journal editorially called attention to this medical catastrophe and stated that that magazine "repeatedly has warned against the use in medical practice of unstandardized, unestablished and uncontrolled methods of treatment." The editorial suggests a reason for the deaths resulting from this particular batch of R or Rex, under which name the Philadelphia firm marketed its product; the reason was that the product was not sterilized for several days after its preparation. However, this excuse (or any other) affords not the slightest reason for any *reading* physicians to use the articles which are not endorsed by the American Medical Association's Council on Pharmacy and Chemistry. This Bureau of the American Medical Association has no axe to grind; it is not antagonistic to any reputable pharmaceutical house; it represents the thought and practical wisdom of some of the best medical brains in America which means the best in the universe!

Just why and how long American physicians will fall for the wiles and guiles of certain manufacturers of medicinal products is beyond our ken, and the same is true of those physicians who madly and blindly rush into public print with the announcement that they have discovered a cure for this or that without first submitting it to critical clinical trial.

THE WOMEN'S FIELD ARMY

The month just passed has seen a notable achievement in Indiana. Full reports are not available at this time, but enough information has filtered in to justify the prediction that April of 1938 has been the month in which the women of Indiana have done their bit toward the dissemination of information regarding the prevention and early recognition of cancer.

Under the able direction of Mrs. George Dillinger, of French Lick, feminine Indiana has gone to the front in an able fashion, carrying to all parts of the State the information that cancer can often be prevented and frequently can be cured if

recognized in its early stages. District and county organizations were completed, meetings were arranged, medical speakers were contacted for the meetings, and today more people in Indiana have a sensible view of the cancer problem than ever before in the history of our state. All this is in accordance with a national program arranged and carried out by the American Society for the Control of Cancer. Much of the credit for this monumental program is due the managing director of the organization, Dr. Clarence C. Little, of Bar Harbor, Maine.

Among the various suggestions that have been made was that periodic examination should be undergone. Many precancerous conditions are discovered in this way and early treatment is made possible. The American woman of today is cancer-conscious, thanks to pioneers like the late Joseph Colt Bloodgood who spent hours and hours of time and considerable money in the furthering of the knowledge that in early recognition lay the most effective weapon against cancer. Indiana physicians have done their part in helping the "army" with their programs and we believe that the time and effort was very worth while. The Women's Field Army deserves thanks for their efforts in behalf of Indiana citizens.

A JOB TO BE DONE

If nothing else is accomplished, at least the proposed A.M.A. "Medical Care for All the People" survey has shown the necessity for local medical organizations to have full-time headquarters offices in the metropolitan centers of the state if organized medicine is to meet the ever-increasing obligations and duties placed upon it. For several years the employment of full-time secretaries by local county medical societies has been steadily growing throughout the nation until today Indiana is one of the few states with cities the size of Indianapolis, Fort Wayne, Gary, Evansville and South Bend where no such set-up exists.

Since the American Medical Association placed the obligation of making this survey, several weeks ago, directly upon the local county medical societies, at least three societies in this state have seen the necessity for full-time functioning organizations to meet new responsibilities in an effective, active, wholehearted manner; and it is easy to see that this present survey is only the start of many duties that the local profession in each community will be obliged to undertake if they do not want outsiders to assume those duties and responsibilities.

St. Joseph county already has voted to employ a full-time secretary and is now considering applicants for the position. Lake county is discussing the advisability of having a "business manager." The idea has been talked of informally many times in Indianapolis.

In regard to making provisions for the survey which every one knows is going to be quite a task in the populous communities, several of the large societies have adopted different methods. In Vigo county the society has voted the necessary funds for the survey, and arrangements, it is understood, are being made for some of the technical work of the survey (the collection and collation of facts and figures) to be done through the economics department of the State Normal School. Vanderburgh county has assessed each member ten dollars to pay for the clerical work necessary in conducting the research.

Not only the large societies but a score or more of the smaller societies have discussed the survey and voted to cooperate with the A.M.A. and the State Association in carrying this out. Unfortunately, in a few cases, the entire intent and purpose of the survey has been completely misunderstood, although *The Journal of the A.M.A.* and this JOURNAL have been filled within the past few months with editorials and other articles in regard to the purpose and necessity of the survey. One society even had it all figured out that the A.M.A. "had sold out to the social workers and the facts and figures gathered by the survey were to be used to bring on a system of socialized medicine." Of course, such conclusions are ridiculous, but one comment which is heard and which unfortunately is only too, too true is: "This should have been done five years ago!" However that may be, the fact remains that the work has been outlined for us, and right now we have a job to be done—a big job. Let's get to work on it!

Editorial Notes

Last month we published an editorial note on the advisability of the employment of a full-time lay secretary of some of our larger county medical societies. This month we are publishing an advertisement from one of this group who seeks the services of such a person. Rather quick results!

Pre-convention plans indicate that headquarters for the Indianapolis session next October will be at the Murat Temple on Massachusetts Avenue. The building lends itself comfortably to a convention such as ours, and it is easily accessible from the hotel district. In passing, it is not too early now to make your hotel reservations for that big event. Hotel accommodations in Indianapolis are a bit limited and the early reservers will get the choice locations. October 4, 5, and 6 are the dates.

Now that "April Winter" has gone and Old Sol again appears in the heavens, there comes that vacation-planning urge, a thing we have talked about on many occasions. And the planning of a vacation is no small chore, if properly done. Whether it be a fishing trip, a motor tour or just a "gad-about" sortie, it should be carefully planned, lest too much time be lost en route. Better be thinking of it, since the summer vacation months already are at hand; at least get the new road maps and travel tour bulletins and spend a few evening hours with them.

A letter from Holman Taylor, secretary-editor of the Texas State Medical Society, expresses his opinion of the special article by Mr. L. L. Bomberger, president of the Indiana State Bar Association, in the March issue of *THE JOURNAL*. Dr. Taylor, dynamic broncho-bustin' chap that he is, says that Mr. Bomberger's article on "State Medicine—A Lawyer's Viewpoint" is the best he has ever seen and he wants reprints for distribution in Texas.

In New York last year a bill was introduced in the legislature proposing a stipend of \$75 for every mother in the State for hospital, medical, nursing and other expenses incurred in childbirth. The bill was not enacted, but the proposed legislation was so publicized that numerous requests for the stipend pour into the offices of the health departments. It doesn't take John Q. Public long to get busy when he thinks there is something to be gotten for nothing—or for the asking.

The Topic-of-the-Month idea of President Baker seems to meet with general approval within the profession, judging from the comments that are heard from members over the state. This program, together with his ideas on preventive medicine, stamps Doctor Baker as a man of unusual ability and achievement. His work during the flood disaster that came upon southern Indiana early in 1937 has not been forgotten. Along with his unusually efficient co-officers and committees, Doctor Baker is making 1938 stand out as a year of accomplishment in Indiana Medicine.

A bill recently introduced in Congress would provide that deductions up to \$250 could be made in computing Federal income tax returns for medical and dental services. While there is little reason to believe that such a law has the slightest chance of getting through Congress, we opine that there is much of merit in it. The Congress is very cautious when considering any and all exemptions in these tax figures, though they have no compunctions when it comes to exempting salaries of

government officials, an exemption that exists for no good reason, as far as we know.

On March 18, 1938, Governor Lehman of New York signed the Twomey-Newell Bill, the first law of its kind to be enacted anywhere. The new law is expected to result in a saving of approximately 13,000 infants annually in New York State from death or disease caused by syphilis. It requires all persons licensed to attend women in pregnancy to administer or cause to have administered a standard serological test for syphilis, and to indicate on the birth or stillbirth certificate if such test was made. If the test has not been made, the reason for the omission must be shown, but the law provides that results of such tests should not be indicated on the birth certificate.

An Indiana physician recently was asked to appear before a committee from his local medical society to explain his appearance as a witness for the plaintiff in a malpractice suit heard in a court several hundred miles from his home community. In the course of the investigation this physician admitted that he would not have appeared in this case had it been heard in or near his home town. This is but another instance of how these odoriferous suits are started and how they are carried on, usually due to the inopportune statement of a physician or his willingness to participate in such an action for a set fee. Were the members of the medical profession a bit more considerate of such matters, malpractice suits would become decidedly uncommon.

THE JOURNAL for April carried one of our reminiscent notes anent the maple syrup industry as carried on in the Hoosier State and mentioned the making of "spiles" during the early spring season, using elderberry branches for the purpose. The editor types the material he prepares for THE JOURNAL and occasionally transposes certain of the letters and trusts that the editorial office in Indianapolis will correct his errors. In preparing this copy he spelled the word "splies" and for one reason or another did not see this particular proof so "splies" it went since no one about the office had any knowledge of the maple syrup business. We'll make a little bet, however, that folks down Wild Cat way knew what we meant!

This is the last call for hotel reservations for the San Francisco session of the American Medical Association, to be held in June. It is possible that a telegram to Fred Warnshuis, 450 Sutter Street, San Francisco, will secure desired accommodations, but it is well to remember that all available accommodations in that city have been reserved by the

local profession and late comers who have neglected to make reservations may find themselves embarrassed because of their lack of foresight.

Primary Day is upon us and we make a very last-minute appeal for Hoosier physicians to be extremely careful of their votes for legislative candidates. As we repeatedly have said, the best time to eliminate undesirable legislators is to "Lick 'Em in the Primaries," the title of an editorial published in THE JOURNAL a year ago. You still have time to look over the list of legislative candidates and to choose those whom you know to be favorable to your profession. If your local legislative committee has been on the job you already have received from them a reliable estimate of the attitude of these candidates toward the medical profession. Every such committee has received from headquarters the voting status of all former members of the Indiana legislature who are again seeking renomination and your vote should be based on such information. This is no time to vote for personal friendship or for acquaintance sake; vote for the interests of the greatest and grandest of the professions.

Venereal disease control continues to occupy the attention of Indiana physicians and her various health departments. The Parran program is being carried out in practically every section of the state and the spirit of cooperation is something of which we may be proud. With the discovery and adoption of a new and cheaper method of making serological examinations, it is expected that these tests will materially increase, particularly since our private laboratories have adopted the one-dollar fee for such tests. The Kline test has been generally adopted; if the test is negative, that ends the matter, but if it is positive, other tests are carried out. This procedure minimizes the cost to a great extent. With a million new cases of gonorrhea and a half million new cases of syphilis in the country each year, it certainly is high time that something be done about it, and the Parran program is that "something." To repeat, we are proud of the part that Indiana physicians are playing in this program.

The sample racket is an old story. An unscrupulous person goes about buying up drug samples from impecunious physicians who fall for the scheme, then turns the samples over to a central point from where they are repackaged and sold to certain druggists at a reduced rate. That particular scheme seems to have died down, only to be supplanted by a more modern version, according to *California and Western Medicine*. The new plan involves the office attendants. The racketeer calls at the office and represents to the attendant that

he is a detail man, and induces her to mail coupons from advertisements to manufacturers, requesting samples, and to keep them until he returns a few weeks later. When he returns he collects the samples and rewards the attendant with a box of candy or perhaps a dollar. One large manufacturer became suspicious of the large number of requests for samples received from a restricted territory, made an investigation, and brought to light this modification of an old racket. The scheme probably will be tried in Indiana sooner or later; it may be well to bear the incident in mind. Physicians can stop this racket.

Comparatively few Indiana citizens are aware of the enormous crop of tomatoes produced within our state each year nor do they know that Indiana has led all states in the production of tomato juice, that delectable product which has increased in public favor at such an amazing pace. And in the canned product, Indiana stands well up in the list of producing states, her rivals for premier honors being Maryland and California. More than seventy million cans of tomato juice and tomatoes were marketed from this state in 1937. This, of course, does not take into consideration the home canned products. Tomato juice, now classed as a fruit product rather than a vegetable one, has come to be the most popular of all the canned juices. Much of the credit for this enormous increase in the use of this Indiana product is to be traced to the ceaseless vigilance of our State Board of Health in seeing to it that the products are handled in the most sanitary manner possible. All canning plants in Indiana are checked carefully throughout the canning season, the result being that the name of Indiana means much to the consumer.

During the two year period ending last March, the needy citizens of Indiana received in monthly cash grants the sizable sum of more than fifteen million dollars. This amount of money was distributed through the state welfare department and does not include the millions spent in poor relief by various township agencies throughout the state. The old age pension list accounted for more than eleven million dollars of the total amount, the number of persons on these rolls having increased from over 32,000 in March of 1936 to more than 42,000 in February of this year. Dependent children have received some three and one-half millions of the total during the two year period, and these numbered 798 in August of 1936, increasing to 27,092 in March of 1938. At present there are 2,263 on the blind relief list. Federal and State governments shared in this expense, the Federal government contributing 45 per cent, the State 34 per cent, and the remaining 21 per cent coming from local county funds. Thus is an accounting

made for more than fifteen million dollars of our various tax funds, and we opine that Indiana is doing her full share in caring for her unfortunates.

An official news release from the American Public Health Association, under date of April 11th, carries the following significant statement: "Recognizing that the responsibilities of the health official have expanded by sheer force of necessity into fields of diagnosis and treatment, considered in the very recent past as beyond the circle of health department obligations, the program of the Association's 67th convention (in Kansas City, October 25-28) will attempt to look around the corner and see what's ahead for the career man or woman in the public health profession. It is agreed in Association councils that the advance in public health has been so rapid in the last half dozen years that a clarification of current objectives and policies is urgently needed." So, it appears that declarations of much interest to the medical profession may be pronounced at Kansas City, next October!

George Crownhart, executive secretary of the Wisconsin State Medical Society, recently met a gentleman of the clergy while en route by train to his home in Madison who made a statement that we believe is worthy of reprinting in its entirety. Certainly it gives a new slant on a timely topic. In speaking of organized medicine, he said:

"Your record of accomplishments is known to others but I am wondering whether medicine will fall into the trap that has been laid for it—and skillfully no doubt—by those who seek to advance selfish or designing ends under the cloak of public attainment. You know, whether physicians appreciate it or not, your state societies and the American Medical Association represent distinguished institutions in the public mind. Those of the public who have been rather keen observants in the past look to these institutions to speak the voice of medicine in the true interest of the public health, when questions of major concern in the field of health arise. I am just wondering, however, whether you will continue or whether we of the public will be confused in our future thinking by hearing from four or five voices. It has happened in labor. Apparently it is happening in law and there are other examples too numerous to mention. I hope that it does not happen in medicine. If physicians divide and subdivide the voice of medicine they will be doing the public a notable dis-service whatever may be their motives."

In response to a request for an opinion relative to Wassermann tests done by the Indiana State Board of Health for individuals who are not in-

digent, Dr. Verne K. Harvey has called attention to the fact that the Association of Clinical Pathologists reduced their fees for a blood test for syphilis to one dollar in an attempt to control syphilis and that, regardless of whether or not an individual is a food handler, if he is financially able to pay one dollar for a laboratory test, the specimen should be sent to a private laboratory. Dr. Harvey points out that it would be impossible for the Indiana State Board of Health to perform free tests for syphilis for everybody, regardless of financial standing, for the facilities of the Board are not sufficient to handle such a volume of work. The State Board of Health has decided that the laboratory will perform *only* those tests sent in by physicians who sign the card accompanying the specimen and stating that the patient is financially unable to pay for such laboratory tests. Probably we always will have among us physicians who will be willing to perjure themselves for a few dollars; they establish and maintain the reputation they deserve. However, it is up to all of us to be very careful in this matter of sending blood specimens to the state laboratory. Our private laboratories, in a commendable effort to help, have reduced their fees to a minimum. Now it is the duty of the private physicians to support those laboratories whenever possible.

The Supreme Court of Iowa recently handed down a decision that will be hailed by medical men as the probable forerunner of the correction of a rapidly growing evil, that of some of the drugless healer folk making valiant efforts to preempt the domain of regularly licensed physicians. It seems that a suit was brought in the name of the State of Iowa, seeking to enjoin an Iowa chiropractor from engaging in practices wholly without the province of his profession. Among the things mentioned in the complaint were electro-therapy, physical therapy, colonic irrigation, and diet. The local court upheld the contention of the State but in so doing seemed to have muddled the situation to the extent that neither side was pleased, hence the appeal to the highest court of the state. In the ruling of the Supreme Court it is set forth that the defendant is enjoined from advertising any and all treatments other than chiropractic, even though he may have declared that these are adjuncts to the manipulation of the spine. The following succinct statement will serve to make clear just what the Court had in mind: "We approve the decree as restraining defendant from professing to and treating human ailments in modes and manners outside the field of chiropractic. . . ." Of recent years the drugless healers have stepped far from their local field, right here in Indiana. Many of them blatantly profess to be able to do 'most anything in the field of healing; many of them are openly engaged in the practice of medi-

cine, even though their state certificates certify that they are chiropractors, naturopaths, or what-nots. The 1927 amendment to our medical law clearly sets forth the remedy in what is known as the injunction clause which, we recall, is the third section of the Act. It certainly does seem that something should be done to use the power invested in state authorities to the end that this growing abuse may be corrected.

Attend the annual postgraduate course in Indianapolis, May 23 to 27. Program on page 260.

At the opening session of the American College of Physicians, held in New York in April, Dr. James H. Means in his presidential address took occasion to make some remarks that were avidly pounced upon by representatives of the lay press in which stories carried the suggestion that Dr. Means had started a revolt against the American Medical Association. While we have no knowledge of what might have been in his mind when he gave utterance to certain unclarified statements, we do believe that Dr. Means was very unfortunate in his choice of words. Of recent years we have noted a tendency on the part of certain members of the medical profession, men who are safely ensconced in lucrative positions, men who have little or no contact with the rank and file of the medical profession of America, men who know nothing whatever of the problems of the "field men," to break forth into print with the utmost chimerical projects. However, it is to the credit of the members of the College that those present at once took steps to correct the false impression set out by its presiding officer. A statement signed by more than 300 of those present at once set aright the facts in the case though, as always is the case, the original story had been broadcast and the damage was done. Morris Fishbein, champion of all that is worth while in medicine, at once took issue with the statement of Dr. Means and has done much to correct the false ideas purveyed by that presidential address. In *The Journal of the American Medical Association* for April 16th, an editorial sets before the medical profession of the country the true facts in the case. It seems that the *New York Times*, apparently eager to air all the difficulties that beset the medical profession—this airing too often not done in an intelligent, understanding way—gave the original story the first page of that great newspaper; correcting statements were to be found in later editions, but not even under a proper heading—they were used as "riders" to other stories. We often have wished that Adolph Ochs might have continued at the head of the *New York Times* until he reached the age of Methuselah!



President's Page



As we review the history of the past two thousand years, we observe a very interesting paradox. During this entire time the common man has fought, suffered imprisonment and torture, for the purpose of decentralizing authority, of giving to the average man a voice in government, and at the same time, man has builded a culture that seems to require the utmost of centralization of power to make it work.

We see constantly increasing complexity, mechanization and urbanization of civilized man. This has been called progress, but, apparently, if man is to enjoy the advantages of all this progress, it will have to be payed for by surrendering privileges that have previously been enjoyed and for which he has made such a long fight. The more specialized and the more differentiated society becomes, the more the individual members will have to give up liberties and assume duties toward that society. For example, today you are obliged to send your children to school and have them vaccinated, whether you like it or not; the house you want to build must conform to the requirements of a planning commission, the fire and police regulations, etc. Through organs of the state our private lives are greatly interfered with, and it must be so, for otherwise life would be impossible in a modern society. As this complexity continues to develop, there will certainly be still further curtailment of individual liberties or the wreckage of the whole structure.

With regard to our own profession, we hear a great many complaints that there are too many physicians. Apparently, little thought has been given to the fact that medicine is still in what may be called its first stage—that of the treatment of sick people. Comparatively little has been done with regard to prevention of disease. Some work has been done on the prevention of communicable disease, but practically nothing at all on preventing individual persons from developing disease.

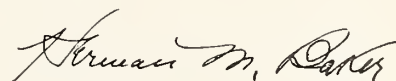
Another paradox which seems rather strange,

when one considers it for a moment, is the widespread fear among doctors of state interference in medical matters, although the same doctors call on the state to take care of the indigent, the unemployed, the mentally ill and chronically sick.

The charge has been made that the medical associations, which undoubtedly were progressive bodies at the time of their organization, have developed into ultra-conservative groups afraid of change—that they look upon medical problems not from the point of view of the society that they are called upon to serve but from the narrower point of view of the benefit of the individual practitioners.

It seems to me that part, at least, of the unrest in the medical world today may be due to the fundamental fact of change which has not been recognized. Society has undergone profound change; the whole organization of the social structure is geared on an entirely different plane than it formerly was. Medical science has been revolutionized and has become a highly technical and specialized science. This science and technology are the driving forces that have transformed both society and medicine. It seems obvious that we must begin thinking in new terms. The old forms and traditions served their purpose and their time but will have to give way.

Someone has said recently that the present wave of unrest in medical education is due to the fact that we are not quite sure as to the type of physician that will be required for the future. Certainly, the time has arrived when we must give serious consideration to what kind of doctor we are going to need and, certainly, we must pause and all do a great deal of thinking as to whence we are drifting. It is extremely important in such times as this, however, to remember that new adjustments and new interpretations must be made slowly and that for the purpose of making such changes it is imperative that we develop a leadership of inspired social imagination and well-grounded thinking men.



Maternal and Child Health

EXPANDING ACTIVITIES OF CHILD HEALTH AND WELFARE SERVICES IN INDIANA—1937*

For many years the first week in May has been observed as Child Health Week in Indiana, in accordance with the Congressional Resolution of May 18, 1928, and with the desire on the part of the citizens of Indiana to promote better health for all the children of this State.

In the early years of the observance of this week, the "fiesta" or "maypole" aspect prevailed in the celebration of this program. This was followed in a few years by a marked tendency on the part of many to commercialize the week for personal or business exploitation. For the past few years Child Health Week has rapidly expanded into real forms of expression and positive and progressive action has been shown by parents, doctors, welfare agencies, public and private health agencies which are interested in the right of every child to a joyous living, and a sound health program. Organizations taking part in this state-wide program are as follows:

- Indiana State Board of Health
- Indiana State Medical Association
- Indiana Advisory Health Council
- County Medical Societies and Auxiliaries
- Indiana State Dental Association
- Indiana State Pediatric Society
- Component Dental Societies and Auxiliaries
- State Department of Public Instruction
- County and City Departments of Health
- Indiana Congress of Parents and Teachers
- State Department of Public Safety
- Girl Scouts and Boy Scouts
- American Legion and Auxiliary
- Chambers of Commerce
- Radio Stations
- Press of the State of Indiana
- Ministerial Alliance
- Civic and Service Clubs
- Federated Women's Clubs
- Indiana State Tuberculosis Association
- Indiana State Nursing Association
- Indiana State Department of Public Welfare
- County Agriculture and Home Economics Departments
- Y. W. C. A. and Y. M. C. A.
- Indiana Chapters of American Red Cross

These interested groups have been greatly assisted in the expansion of these activities not only for one week of the year but for 365 days of the year, by the enactment of the Indiana Public Health Act and the State Welfare Act on March 16, 1936, by the special session of the Indiana State Legislature. This Act was passed in accordance with the National Social Security Act, providing for the improvement and extension of existing health and welfare services to all children. These acts have been administered by the Indiana State Board of Health through the Bureau of Maternal

and Child-Health, and by the Department of Public Welfare through its Division for the Care of Dependent Children and the Division of Crippled Children. In addition there has been a gross correlation between other State departments, such as the State Department of Public Instruction, the Bureau of Public Health Nursing and the Bureau of Rural Health Administration, and the divisions of State government interested in the health and welfare of infants and children.

In addition, these services have been carried forward through the excellent cooperation of the Indiana State Medical Association, the local county welfare boards, the county commissioners and councils, together with assistance from such organizations as the Indiana State Dental Association, the State Tuberculosis Association, the Indiana Chapters of the American Red Cross, the Congress of Parents and Teachers, and by private agencies and individuals. The chief objective of all of these combined forces has been to promote year-round child health services in each community.

Since the enlargement of this splendid program, the officers and members of the Indiana State Medical Association and the Indiana State Dental Association have followed its development and operation with keen interest, and have cooperated with the various programs herein described by approving plans for carrying out these programs. This has been accomplished by the excellent functioning of the following committees:

- Indiana State Medical Association:
 - Liaison Committee to Bureau of Maternal and Child-Health
 - Executive Committee
 - Bureau of Publicity
 - Committee on Postgraduate Study
 - Committee on Mental Hygiene
 - Committee on Crippled Children
 - Sub-committee on Study of Infant and Maternal Mortality
- Indiana State Dental Association:
 - General Advisory Committee to Bureau of Maternal and Child Health

In addition these administrative agencies have been guided by such advisory bodies as the Indiana Advisory Health Council, the members of which are appointed by the Governor of the State, and which is composed of various professional and lay persons interested in the promotion of child and maternal health and welfare. It has been the aim of these advisory councils to see that all services were carried out, first, to the best interest of the mothers and children of the State and, second, to preserve the rights of organized medicine and dentistry to be the leaders in carrying forth all actual health services to the mothers and children

* From the Bureau of Maternal and Child Health of the Indiana State Board of Health, Indianapolis.

of Indiana. It may likewise be stated that the administrators of the State departments and bureaus dealing with child and maternal health and with child welfare services have in turn co-operated with the Indiana State Medical Association and the individual county medical societies in planning and carrying out any local demonstration services. It may be here stated that each county has cooperated in some way in improving its aid to the health and welfare services of its children. It is true that some counties have been more alert to take advantage of this assistance than others and have, therefore, made more rapid progress in carrying out a broader health and welfare program for its children. Reference is made to those county medical societies carrying out such special demonstrations as:

1. Nursing home delivery service and assistance to physicians at bedside delivery.
2. Dental care of indigent children.
3. Mental hygiene program for children.
4. The employment of a county nurse to carry out a generalized public health nursing program.
5. Immunization programs and treatment of indigent syphilitic children, as is sponsored and carried out by the local county medical societies.

DETAILS OF ACTIVITIES OF THE BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH — 1937

I. ORGANIZATION

All administrative and organization procedures have been carried forth under the strictest cooperation, as outlined above. Details of the organization of the Bureau of Maternal and Child-Health

of the Indiana State Board of Health are seen in the accompanying chart (Figure 1).

II. ACTIVITIES OF BUREAU

A. Educational

1. Refresher Courses to County Medical and Dental Societies

Through the Committee on Postgraduate Study of the Indiana State Medical Association, splendid programs have been carried directly to the county and district medical societies. The following table shows the number of medical programs held:

Total number of refresher courses.....	50
Council or district programs.....	12
County medical societies.....	35
Nursing institutes.....	3

At a recent meeting of the Committee on Postgraduate Study of the Indiana State Medical Association and President Herman Baker, plans were outlined to intensify this type of educational work to selected counties which will avail themselves of this program. It is planned to conduct a "circuit type" of postgraduate instruction in several of the medical districts throughout the State during the coming spring and fall. A similar program is being planned for the dental profession, and in addition a concentrated postgraduate course in children's dentistry will be carried out in the form of short courses. These courses will be provided in cooperation with the Bureau of Maternal and Child Health and the Indiana University School of Dentistry.

Figure 2 indicates the county medical societies which availed themselves of pediatric and obstetric lectures from July 1, 1937, to March 1, 1938. Also there are indicated three districts, Nos. 7, 9 and 12, which have had district programs.

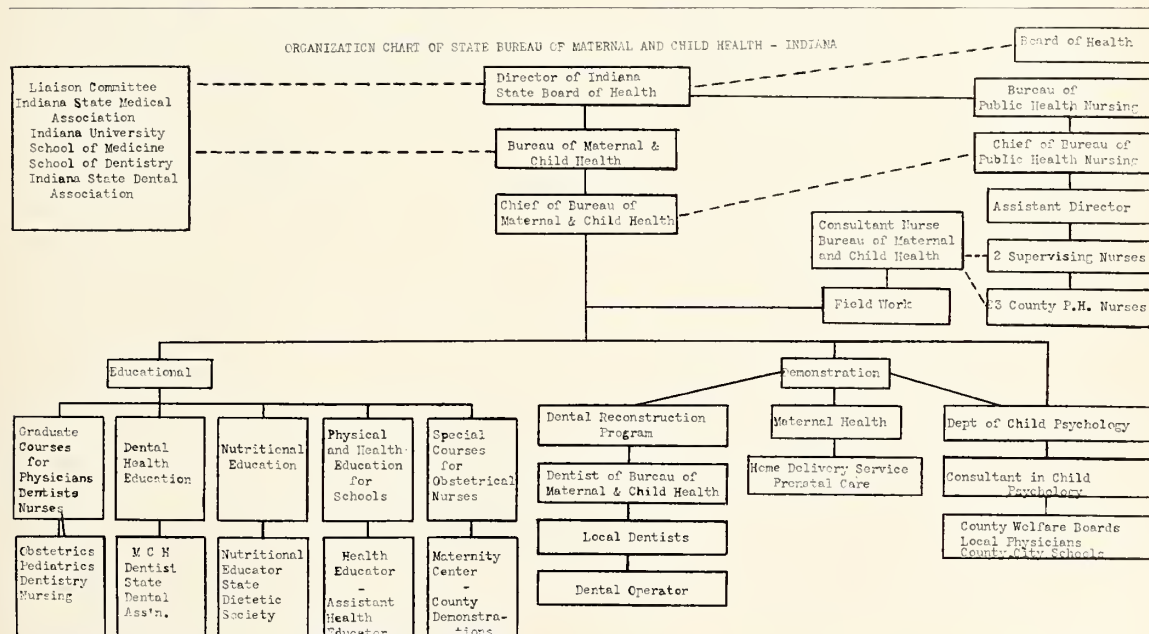


FIG. 1. ORGANIZATION CHART OF STATE BUREAU OF MATERNAL AND CHILD HEALTH IN INDIANA.

MEDICAL POSTGRADUATE EDUCATION IN INDIANA

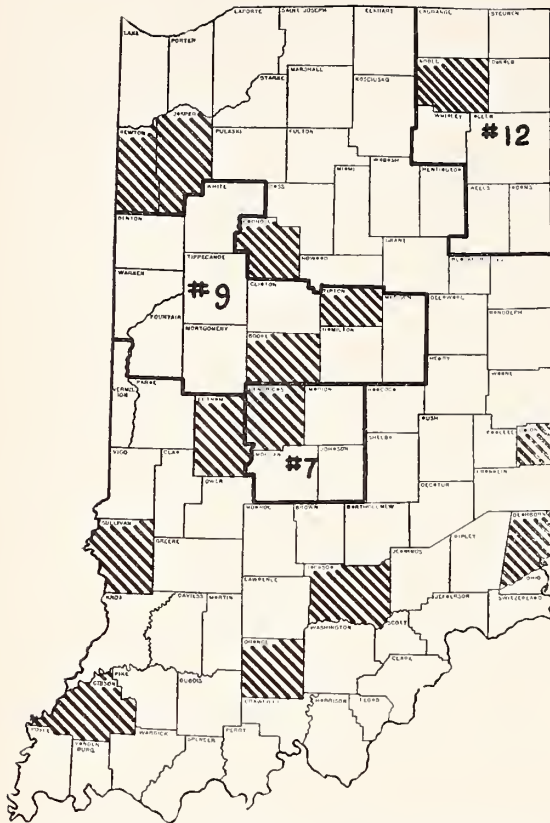


Figure 2. Shading indicates counties where postgraduate courses have been conducted. Outlined districts indicate councilor districts which have had postgraduate courses.

2. Speakers' Bureau for Lay Audiences

This Bureau has been established through the cooperation of the Bureau of Publicity of the Indiana State Medical Association, so that lay audiences wishing speakers on health subjects can obtain qualified speakers by writing either direct to the Publicity Bureau of the Indiana State Medical Association, or to the Bureau of Maternal and Child-Health. Approximately 450 health and dental lectures have been carried to the public through the excellent cooperation of the members of both organizations. (Figure 3.)

3. Literature

There is available to medical societies and to lay audiences literature and motion picture films, projectors and operators for carrying out public health lecture programs and demonstrations. An average of 40,000 to 60,000 pieces of literature on health subjects are distributed by the Indiana State Board of Health monthly upon request from the citizens of the State.

A list of available literature and films can be obtained by writing the State Board of Health. These services are free to organizations requesting them.

4. Health and Physical Education

The Bureau of Health and Physical Education has engaged in the following health education projects during the past school year:

1. Teaching the need of a yearly examination (medical and dental) for teachers, pupils, and custodians of buildings.
2. Cooperation with all health agencies.
3. Health demonstrations and play days.
4. Requirement of better health training for teachers in training institutions.
5. Insisting that health be taught by teachers trained in health.
6. Maintaining health information service for teachers in the field.
7. Distribution of graded physical education courses of study, as of grades 1-3, 4-6, Junior High School, and Senior High School.
8. Encouraging teachers in promoting interest in athletic field days, health pageants, health testing, etc.
9. Collecting and distributing bibliographies to teachers on health and physical education.

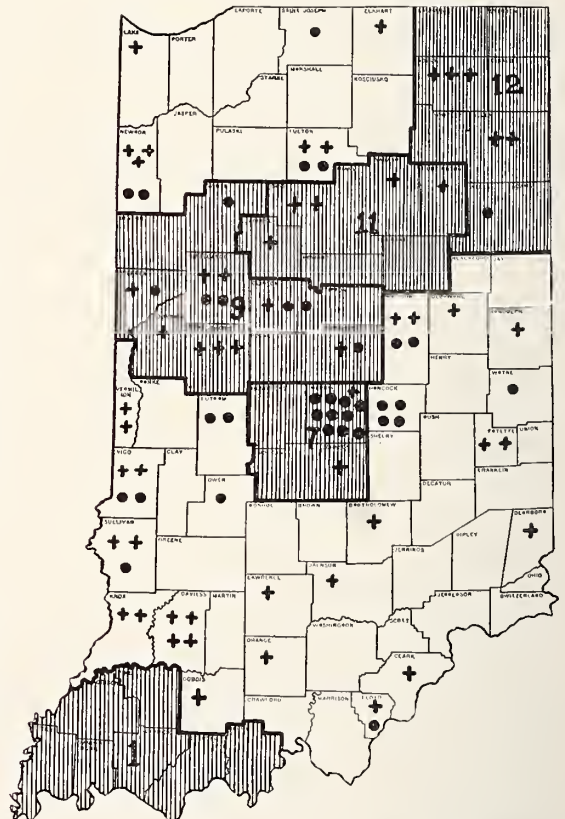
LECTURE PROGRAMS FOR FISCAL YEAR 1937-1938
Indiana Bureau of Maternal and Child Health

Figure 3. Cross symbol indicates "refresher" courses for medical and dental societies. Dots indicate lecture programs for lay groups. Shading indicates "refresher" courses for district societies.

10. Assistance in training of teachers in service through programs, talks and exhibits at teachers' institutes, faculty meetings, and extension classes.

11. Holding conferences, individual and group, with teachers and faculty committees on health.

12. Visits and consultations in class rooms, gymnasiums and schools.

13. Lectures to teachers' association, Parent-Teacher Associations, and adult education groups.

14. Establishing and maintaining a reference and consultation bureau—a bureau service to teachers, superintendents of schools, and athletic directors.

15. Establishing a reference library built to answer technical questions.

16. Advising school administrators on layout equipment, gymnasium procedures, policies, and programs.

17. Assisting in the guidance of administrators through lectures to high school superintendents, grade and high school principals, school men's clubs, and superintendents' associations.

18. Supplying speakers for school programs to superintendents and principals on subjects of health and physical education.

19. Supplying superintendents and principals with information regarding services, programs, and personnel for special health meetings.

20. Cooperation with state-wide semi-educational agencies, such as Parent-Teacher Associations, Tuberculosis Association, Indiana Health Council, State Board of Health, American Legion, Federated Women's Clubs, and civic and service clubs.

21. Attempt to develop professional spirit among educators and teachers through letters, visits, consultations, meetings, news releases, etc.

22. Education of the general public through releases to newspapers, articles for the different educational magazines, speaking before Rotary and Kiwanis Clubs, Parent-Teacher Associations, general public gatherings, etc.

23. Cooperation with state-wide educational organizations, such as Indiana State Teachers' Association, Southwestern Teachers' Association, Northeastern Indiana Teachers' Association, North Central Indiana Teachers' Association, First District Teachers' Association, Indiana High School Athletic Association, Indiana High School Coaches' Association, Indiana School Men's Clubs, and City and County Superintendents' Association.

24. Assistance in the direction of the State, District and National Physical Education Association as members of the Executive Committee of Indiana Physical Educational Association; members of the Legislative Council of the Mid-West Physical Educational Association (including Indiana, Illinois, Wisconsin, Michigan, Ohio and West Virginia); members of the Legislative Council of the American Physical Education Association (a

department of the National Education Association).

In addition, the Division of Health and Physical Education has distributed the *Monthly Bulletin* which gives the general outline of the health activities of the State. The extent of the distribution of this monthly publication, per 1,000 population, is shown by the accompanying map. This map also shows the extent of public health education carried to the people of the State of Indiana. (Figures 4 and 5.)

B. Demonstrations

1. Dentistry

In addition to a very broad program of dental health education, a dental demonstration program which was the first of its kind in the United States was inaugurated in Indiana in August, 1936. This demonstration consists of a mobile dental unit—a complete dental office on wheels. It has all the physical adjuncts necessary for the rendering of efficient dental service. It contains a dental chair, an instrument cabinet, instruments of the latest design, adequate laboratory, supply and linen cabinets, sterilizer and modern lighting equipment. A competent dentist has been placed in charge of the work in this unit. This unit is stationed in a selected area for definite periods,

DISTRIBUTION OF MONTHLY BULLETIN

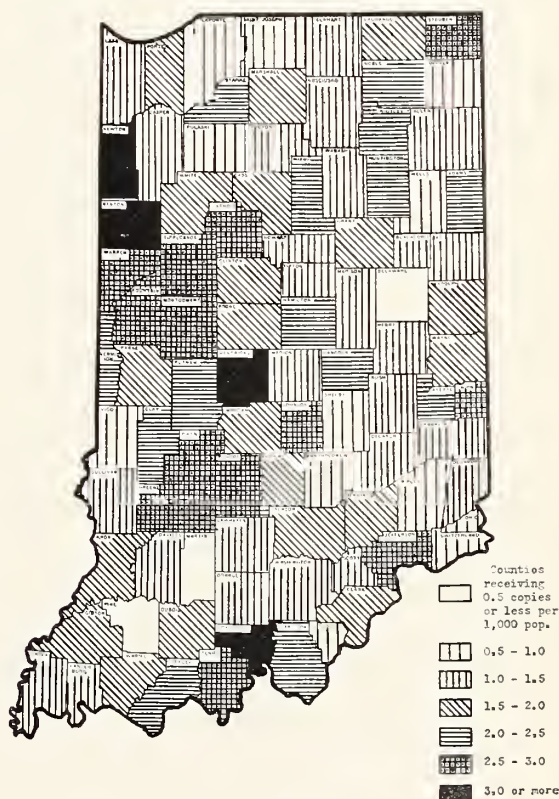


Figure 4. Map showing distribution in Indiana of Monthly Bulletin of the Indiana State Board of Health, per 1,000 population.

subject to the direction of the dental advisory committee of the Indiana State Dental Association, and the officers of the local component dental societies. Under the present set-up, all indigent children between the ages of three and ten years are eligible for dental care in this subject. In this way complete dental services are carried to the indigent families throughout the demonstration area. The dental interne is assisted in securing and selecting patients by the dentists, the public health nurses, and the welfare workers of the area in which the unit is located. Since the operation of this unit was begun, hundreds of children have received dental care who otherwise would not be able to receive this care. Plans are now being considered for extending and improving this demonstration, by the Advisory Committee of the Indiana State Dental Association.

2. Public Health Nursing Services, and Special Home Delivery Nursing Services

The accompanying map shows the role which the Bureau of Maternal and Child-Health, functioning with the assistance of the Bureau of Public Health Nursing and Rural Health Administration of the Indiana State Board of Health, plays in developing and assisting local official agencies in financing public health nursing services in the rural areas of Indiana. In 1936 the ratio of public health nurses to the rural population of Indiana was 1:31,500, while on March 1, 1938, the ratio was 1:17,009. In March, 1936, at the time of the creation of the Bureau of Maternal and Child-Health, there were 41 counties in Indiana which had no public health nursing services, private or public, within their borders. Today, through the assistance of the Bureau of Maternal and Child-Health and the appropriation of funds locally, 28 of these counties are provided with nursing services. (Figure 6.) From the foregoing figures it is easy to see how the fulfillment of one of the main objectives of the Health Section of the Social Security Act, namely, to equalize public health services among all sections of the population of Indiana, has been accomplished.

Two outstanding in-service training projects for field nurses were planned and carried out during the past year. One project consisted of two three-day dental health institutes held at the Indiana University School of Dentistry in Indianapolis and attended by sixty-five public health nurses, who have been the leaders in integrating better dental health education into their generalized public health programs. The other project was the four-day maternity institutes for nurses, conducted by Miss Anita Jones, R.N., of the Maternity Center Association in New York, at Washington, Connersville, Huntington, and LaPorte, which were attended by a total of 363 Indiana nurses, 131 of whom were public health nurses, 89 were institutional nurses, and 31 were private duty nurses. The maternity institutes were financed by the

BUREAU OF HEALTH AND PHYSICAL EDUCATION



Figure 5. Map showing engagements filled by personnel of Bureau of Health and Physical Education, June 1, 1936, to June 1, 1937, inclusive.

Bureau of Maternal and Child-Health with the assistance of the Indiana State Nurses' Association.

In 1937, of the 55,988 babies born in Indiana, 21,429 were born in hospitals, leaving 34,559, or the greater number, born in their own homes. For the last three months of 1937, reports show that public health nurses assisted at 236 home deliveries, and while we have scant data as to how many deliveries were attended by private duty nurses, the calls which registries receive indicate that there are not many. Probably the great majority of babies born in hospitals are from urban areas, leaving the great bulk of home deliveries in the rural areas and small towns.

Seven local public health nurses are now employed in Allen, Perry, and Spencer counties to give nursing care to mothers and assist the attending physician at the time of delivery. These services are financed through funds from the Bureau of Maternal and Child-Health. The situations in these counties are varied. Allen County in 1937 had 2,500 births, 1,528 of which were in hospitals, leaving approximately 1,000 home deliveries. Perry County had around 300 births, 12 of which were in hospitals, and Spencer County had 268 births, approximately 15 of which were in hospitals outside the county.

All these nursing delivery services are parts of

PUBLIC HEALTH NURSING SERVICE

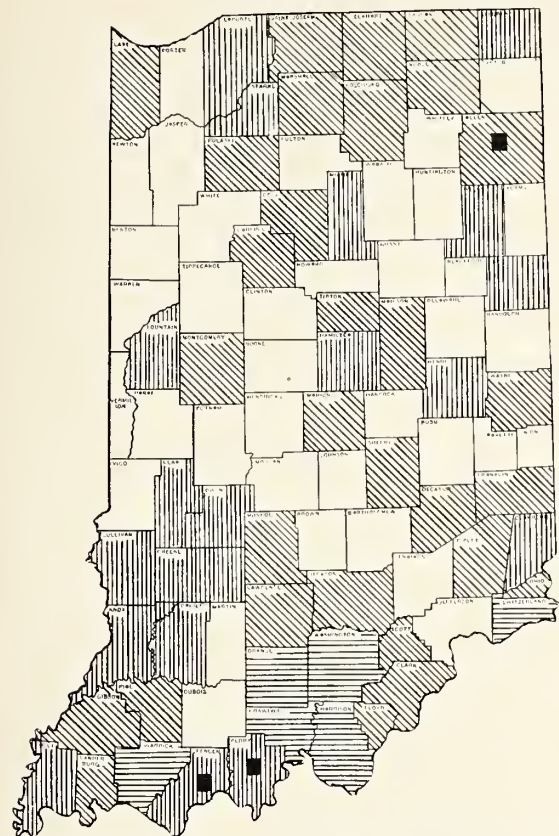


Figure 6. Full time county-wide generalized public health nursing services and special nursing delivery services in Indiana as of March 1, 1938.

Vertical lines: Assisted by MCH funds at present.

Horizontal lines: Started with MCH funds, taken over by other official funds since.

Diagonal lines: Financed by other official or unofficial funds.

Black: Rural delivery nursing demonstration financed by MCH funds.

a more generalized public health nursing program in the community. In Allen County the nurses coordinate their work with that of the county nursing service, the Visiting Nurse League, and the City Health Department. In Perry and Spencer counties the nurses fit their program into that of generalized county nurses and District Health Department No. II at Huntingburg.

The Allen County delivery nurses reported that they had admitted twenty-seven maternity cases during the past January and assisted with twenty-one deliveries. The Perry County delivery nurses reported that on January 31 they were carrying eighty-four ante and post-partum cases and had assisted with nineteen deliveries during the month in every part of the county.

Besides these special maternity demonstrations, the attention of all generalized public health nurses has been focused a little more closely upon the care of mothers, infants, and pre-school chil-

dren. One county nurse in a district health department writes, "Recently I stopped at a beauty shop in a small town to ask the address of a patient, and while there the operator reported sixteen ante-partum cases to me. My supervising nurse suggests that I organize a Mothers' Club of this group."

County public health nurses in organized health departments are regularly delivering notices to new mothers that their babies' births are registered in the State Board of Health. These visits give them entree into all homes where there are new babies, enabling them to make many valuable contacts.

Public health nurses are active in the health education programs of their communities. They are distributing the health literature available from the State Board of Health, the State Tuberculosis Association, and many national agencies. They assist medical and dental societies and lay groups in arranging for health films and visual education shows to be shown groups in their community, and they are important leaders in May Day programs all over the State.

3. Child Mental Hygiene Program

In August, 1937, a Division of Child Psychiatry was established in connection with the Indiana State Board of Health in the Bureau of Maternal and Child-Health. This department, which was organized to fulfill the need for a mental hygiene program for the children of Indiana, works with the Children's Division of the State Department of Public Welfare and with the Indiana University School of Medicine, with the cooperation of the Indiana State Medical Association and the State Department of Public Instruction.

This psychiatric service is available to and works as a unit with the Children's Division, and the James Whitcomb Riley Hospital for Children, which is a part of the University Medical Center. The child psychiatrist, who is provided by the State Board of Health, works through these two organizations:

- a. The Children's Division provides the psychiatrist with a psychologist and two social workers. The psychiatric unit gives service at this time to three counties—Sullivan, Morgan, and Jay—as well as an orphanage, the Indiana State Soldiers' and Sailors' Orphans' Home at Knightstown. These areas were chosen for the service because they already are partially self-supporting.

It is hoped that such a service will foster feeling toward establishing local units which will assume full financial responsibility, at which time the present State psychiatric staff may move on to another field, or enlarge to include adjacent communities.

The present order of working provides that the social workers in each area bring in problems with which they want help, along with a

history and record of their contact with the case. Psychiatric and psychological examinations are held, parents or foster parents interviewed, and, whenever indicated, school principals are conferred with. Local physicians and the county health nurse also may refer cases for examination and treatment. Local doctors make the prerequisite physical examinations on children seen in the psychiatric clinic.

At the present, two days every other week are spent in each "demonstration area."

- b. The Department of Child Psychiatry, which has been established in connection with the Indiana University School of Medicine, is in the Department of Pediatrics, and fulfills a wider State need, since indigent children from the entire State are accepted as patients at the James Whitcomb Riley Hospital.

In addition to the psychiatrist, the staff includes two psychologists from Indiana University and Riley social workers, and, of course, has the cooperation of the pediatrician-in-chief of the staff.

In the three demonstration counties, approximately 150 children which present some problem requiring the attention of the psychiatric staff have been examined. This includes the examination of children for placement, but does not include examination of a large number of children at the Indiana Soldiers' and Sailors' Orphans' Home, and other orphanages throughout the State. These figures also do not include those children seen as emergency cases from counties other than Sullivan, Morgan, and Jay. Such special cases have been referred by social workers on the staff of the Children's Division because of very difficult and serious behavior problems. These are children who have been dependent on the county or township.

Another function of this mental hygiene program for children is to make available to private physicians consultation services where they are desired. In the areas in which this type of program has been set up, a physical examination and report from the examining physician is required as a part of the material history presented to the psychiatrist by the referring physician. This physical examination is to include urine and Wassermann examinations, charges for which are made by the local referring private physician. It might be stated that in all cases a physical examination is made on all children, usually by the family physician, and in those instances where the patient cannot pay for such examination, the local physician is reimbursed by the director of the local county welfare department for his services. When the child is a ward of the township, and is dependent upon the township, this service is paid for by the township trustee.

Another important activity of the Department of Mental Hygiene for Children has been consultation services to the matrons and officials of the

correctional institutions of the State of Indiana. This service has had to be limited, due to the wide scope of the program as originally outlined. In addition, the director of the Department has acted as consultant to teachers' colleges and other institutions of learning dealing with younger groups of students. Many teacher groups and parent-teacher organizations have availed themselves of lecture programs on the subject of child management, child behavior and other problems pertaining to the mental development of the child, which are given by the Director of the Department. These educational programs are available to all special groups interested in this type of information and study.

4. Immunization Programs

Early in January of this year the advisory committee of several county medical societies met with their respective health officers and with representatives of the Indiana State Board of Health, and outlined their plans for undertaking a public health project sponsored solely by the medical society. Sullivan County has carried out such a program, some details of which were published in the April issue of *THE JOURNAL*. Another immunization program against diphtheria is now in progress in Fayette County. Here the actual operation of the program is somewhat different from the one carried out in Sullivan County, in that the physicians are vaccinating their own patients, without charge, in the county schools.

Regardless of the manner in which these programs have been conducted, these counties have set the precedent of getting the work done according to the ideals and customs of their own community. In the end the result is accomplished; namely, every child between the ages of five and eight years is immunized against diphtheria.

5. Tuberculosis Programs

In many counties throughout the State tuberculin testing programs are carried on through the cooperation of the county tuberculosis association and the members of the local county medical society. A very interesting program of this type has been developed in Dearborn County, where the physicians are supplied with materials through the tuberculosis association. The offices of the private practicing physicians are available at all times for any child to receive the tuberculin test at a minimum cost. The cost is paid by the family, and if the patient is unable to pay, the expense is guaranteed by the local tuberculosis association. The same agreements for x-rays on positive reactors have been made by the physicians and the tuberculosis society. Again in this case, regardless of the method followed in the program, a successful tuberculosis program is completed.

6. Syphilis Control Program for Children

The Shelby County Medical Society has been unique in inaugurating a syphilis control program

for children, sponsored by the Society. Here this Society has undertaken the treatment of all indigent syphilitic children without cost. Materials for treatment have been supplied by the rules and regulations set up for treatment of indigent cases through the Indiana State Board of Health. For details as to the method to follow in order to obtain free anti-syphilitic drugs, reference is made to the April, 1937, issue of *The Journal of the Indiana State Medical Association*, page 209.

C. Scholarships

One of the chief difficulties encountered in the rapidly expanding programs for maternal and child health services in Indiana has been the inability to secure qualified personnel in such special services as the generalized public health nursing service, maternity nursing, dental care, district health administrative officers, sanitarians, and other personnel required to carry out a successful public health program. Indiana especially lacked personnel of this type, and it was therefore necessary, in order to perpetuate and expand the program, to prepare students interested in the public health field for future employment. Forty-five

public health nurses have been awarded scholarships for general public health nursing and for special maternity nursing programs. Six health officers have received scholarships for training for local public health administration, as also has one industrial hygienist, and a number of sanitarians and engineers.

D. Cooperative Study of the Bureau of Sanitary Engineering and the Bureau of Dairy Products

At all times these Bureaus are constantly making investigations for the safe milk and water supply for the children of Indiana. Figure 7 presents the results of the extensive study conducted by the Bureau of Sanitary Engineering, showing the water supply throughout the State of Indiana.

III. ACTIVITIES OF THE PRIVATE AGENCIES

During the year of 1937 an extensive survey of available child and maternal health service was conducted, details of which were published in the September, 1937, issue of *The Journal of the Indiana State Medical Association*. In this survey the conclusion was drawn that there is a vast opportunity for the improvement of these services throughout the State of Indiana. However, the year of 1937 has shown that great improvements of these services along medical, nursing, dental and sanitary programs have been realized.

No report would be complete without summarizing the activities of the various private agencies conducting child health services in the State. Statistical reports show that thousands of children have been vaccinated against smallpox and diphtheria during 1937. There has been an increased interest shown in maternity care by more adequate provision for prenatal and maternity care. This has been shown by the lowering of the maternal death rate by nearly 25% from the preceding year: 1936=4.5 per 1,000 live births; 1937=3.4. This is a considerable progress when we consider that the death rate was 6.8 in 1929; each subsequent year has shown a fall in the maternity mortality rate. Reports from private agencies show a great increase in the enrollment and attendance of the special maternity classes. Indiana has always been proud of her infant and preschool hygiene, and a sustained interest in this important phase of child health service has continued and expanded. However, it is believed that there is still much improvement to be made in school hygiene.

IV. SPECIAL STUDY OF INFANT AND MATERNAL MORTALITY RATES

In October, 1936, a special committee of the Indiana State Medical Association for the study of the causes of infant and maternal mortality was formed to cooperate with the Bureau of Maternal and Child Health. This interesting study is now in progress. The findings of this committee are to be published after January, 1939. There has been noted an increased interest among the private

PUBLIC WATER SUPPLY IN INDIANA, FISCAL YEAR 1936-1937

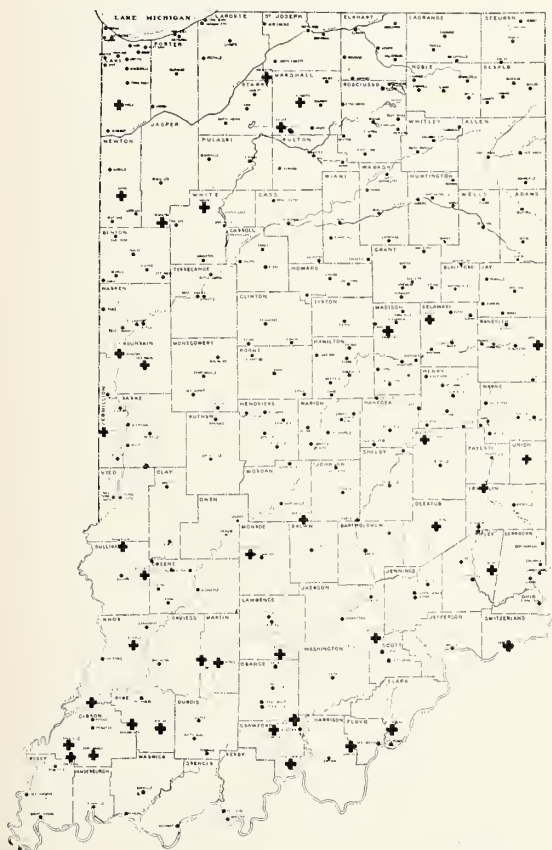


Figure 7. Map from Indiana State Board of Health, Bureau of Sanitary Engineering.

Dots: Met standards.

Crosses: Did not meet standards.

physicians in this state-wide study and the splendid response on the part of the profession has been shown—approximately 85% returns are received on the questionnaires. A statistical study now being conducted in Indiana (to be published later) indicates a startling percentage of infants born who die during the first day, first week, or first month of life. Little or no progress has been made in this age group. Herein lies a problem which must be solved.

V. CHILD WELFARE IN INDIANA

The provisions for the welfare of the dependent children of Indiana have been greatly extended since the creation of the Department of Public Welfare of the State of Indiana. The accomplishments and services of this Department can be appreciated from a study of the reports prepared by that Department. The general goals for the Child Welfare Program in Indiana can at once be seen by studying the following proposals outlined by the Children's Division of the Public Welfare Department.

1. To make it possible for every child to remain in his own home when that home has more to give to him than any other substitute could possibly give and to see a plan worked out whereby no child will be removed from his own home for economic reasons alone.

2. To further safeguard family ties by seeing to it that when a child must be removed from his own home every possible relative resource is exhausted before any plans are made for foster care.

3. To protect neglected children by attempting first to remove the causes of neglect or, if that is not possible, to remove the children, through procedures authorized by law, from endangering conditions and to see that these procedures are carefully followed to the end that parents and their children will receive adequate legal protection.

4. To serve the child handicapped by physical defects by seeing to it that he receives the care, treatment, and training which his condition requires.

5. To assist in the development in every county in the State of adequate foster care facilities for those children who must be removed from their own homes, including both boarding home and institutional care, so that a plan may be developed to meet each child's need.

6. To safeguard the child born out of wedlock, and also his mother, so that their needs may be considered more in the light of those of the ordinary family group and dealt with as such.

7. To help protect the mentally defective child, so that he may have the benefit of scientific study and a plan made for him in the light of that study either for custodial care or a plan in the community with proper safeguards.

8. To assist in the development of an adequate program in the prevention of juvenile delinquency

and to help in the development of better facilities, particularly psychological and psychiatric service, for the study and treatment of children with behavior problems.

VI. SERVICES FOR CRIPPLED CHILDREN

In the June issue of *The Journal of the Indiana State Medical Association* more details of the services to crippled children will be outlined. The general accomplishments and purposes of the Division of Crippled Children of the State Welfare Department are as follows:

The Division of Services to Crippled Children, under a medical director, seeks to extend medical and social services to all crippled children in Indiana, particularly to those who live in areas of severe economic distress or predominantly rural communities. It attempts to unite all facilities within the State for the care of crippled children.

Already the division has equipped and staffed at the James Whitcomb Riley Memorial Hospital for Children a new project for the treatment of cerebral palsy or spastic paralysis. A speech pathologist, a physical therapist and an occupational therapist have been permanently added to the staff and considerable new equipment has been bought.

In addition to the Riley Hospital at Indianapolis, a new center for hospitalization of crippled children has been established in South Bend, so that all crippled children in Indiana, regardless of the area from which they come, may receive promptly the services of special equipment and facilities for the treatment of orthopedic cases, and at the same time, the parents of these crippled children may maintain close relationships with the children and with the staff of the hospital. Each hospital will have available foster-homes for crippled children. These homes will be inspected and approved by the State Department of Public Welfare. Their function will be to receive children from hospital wards before they are actually able to return to their respective homes. While in residence in a convalescent home, the children receive necessary treatment to aid in rapid recovery. The program also provides for the services of orthopedic nurses and medical social workers.

In the past, no complete census of crippled children in Indiana has been taken. The division has projected a plan which calls for the taking of a census to include every crippled child in the State. A crippled child, as defined by the division, is one who has some defect of bone, joint, tendon, or fibrous sheath covering muscles, or an affection of the muscles or nervous system, which makes impossible the free and normal use of the extremities of the trunk.

In a work of such wide scope and of such broad humanitarian impulses, it is expected that every socially-minded person, every member of a medical, civic or fraternal organization, will desire to take an active interest.

(Concluded on page 259)

Swindling Is Big Business

. . . AND YOU, SIR, ARE A VICTIM!

T. M. OVERLEY, Secretary and Manager
Indianapolis Better Business Bureau

It is difficult, if not impossible, to estimate the amount of swindling which goes on in this country annually. There have been various attempts to estimate it, but any estimate, no matter how carefully made, must be inadequate because it cannot possibly uncover the thousands of cases where the victim refuses to report or divulge his experience.



Mr. Overley

The best estimates which I have been able to obtain are those compiled a few years ago by Mr. Herbert Baum of the Protective Department of the American Bankers Association. Mr. Baum estimated that the total losses on the average annually in this country would approximate four billion dollars.

Economists generally estimate that the additional economic loss to the country through these operations will possibly be double that amount. This, of course, takes into consideration such things as the maintenance of police and prosecuting departments and officials, prisons, prison officials, idle convicts, and other items indirectly resulting.

Edgar A. Hoover, in a recent series of articles on crime, has estimated that crime in this country diverts some fifteen or sixteen billion dollars from the productive channels of legitimate business. Mr. Hoover is probably in a better position than any other man in the country to have a knowledge of the situation.

Truly, crime and swindling in their various forms constitute a "big business" operation in this country. They present a problem to every right-thinking individual, whether he be a business executive, a professional man, or a day laborer. All of it adds to and increases his cost of living.

The average individual is unable to comprehend the staggering amount of money that is involved in eight billion dollars, which is the total estimated average annual cost of swindling in its various forms in this country. Possibly some of our New Dealers who are accustomed to dealing and thinking in terms of billions may have some conception as to what is involved, but even this is doubtful. Few of us have a yardstick or a guide in terms of our own experience by which we may be able mentally to measure or imagine how much is involved.

We might be able to comprehend it by thinking in terms of the following illustration as to what

could be done with that amount of money. Imagine a street three thousand miles from one end to another. Such a street would stretch approximately from New York to San Francisco, or from the Atlantic to the Pacific Ocean. Divide that street into one hundred foot lots on both sides. That is approximately twice the size of the average city building lot. This would give you 316,800 building lots on both sides of the street. That is enough money to place a house on each lot, or to build 316,800 houses costing \$10,000 each. Furnish each one of those houses with \$5,000 worth of furnishings and decorations. Give a family in each of those houses \$5,000 for the first year's living expenses, and on top of this, provide each family with two automobiles costing \$1,000 each, or 633,600 automobiles. There would still be enough money left to build a school house for each mile, or 3,000 school houses costing \$100,000 each, and to place a church beside each school house costing \$70,000 each, and still leave more than five hundred million dollars for charity, playgrounds, amusements, or what-have-you. This, of course, is purely an imaginary illustration, but it gives you something to think about in terms of commodities with which we are familiar. It is a staggering amount of money, when it is considered that it is annually diverted from productive business.

Crime and swindling tend to stagnate business. They divert money from productive channels, and in the proportion to which they do this they stagnate the turnover of the dollar, which is essential to good business, or prosperity.

The crook and swindler is not a producer. When he sells a fraudulent security, a gambling contract, a fake oil royalty, an impossible profit sharing agreement, or any one of hundreds of other questionable methods of obtaining money, he does not give a full economic value for that which he takes. In so doing, he stagnates the turnover of the dollar by destroying the immediate opportunity for that dollar to do good in productive lines of business. His victim, through the loss which he occasions, depending upon his economic circumstances, is slowed up in his purchasing or paying power, and all those who may be creditors or prospective creditors of such victims are indirectly affected.

It is probably unnecessary to call the attention of a group so well educated as the readers of our STATE MEDICAL JOURNAL to the well recognized,

fundamental rule of business and economics that anything which interferes with the turnover of the dollar interferes with the possibilities for successful business. The rule is best known possibly through the old saying that "successful business is in ratio to the speed with which the dollar passes to and fro from the butcher, to the baker, to the bric-a-brac maker." Anything which interferes with that freedom of equal interchange of money and merchandise or services has a stagnating effect, and is inimical to the public and business welfare.

To illustrate: An automobile salesman loses a sale of four automobiles in six months to prospects who were unable to buy at the time because they had lost through fraudulent transactions. In the course of business, these prospects might later purchase the automobile from him, but depending upon their economic circumstances, their purchase would be delayed until their loss could be recouped. In this instance the salesman lost his immediate commission, and it is possible that he might be delayed in paying his doctor's bill, his grocery account, or other obligations, as a result. The dealer lost his profits; the manufacturer lost that much output; the workmen in the factory lost the opportunity for that much additional work; and the families in the homes of the workmen indirectly were affected.

Another illustration: In Indianapolis the Better Business Bureau has been instrumental in raiding or closing more than a dozen major suit club activities. In these cases, fast working salesmen, by high-pressure methods, would rapidly sell contracts to men of varied financial circumstances. Their promises were not with regard to the reliability of the company, the style of the suits, the quality of the material, but that if the purchaser's contract contained the last two digits that were found in the clearing house, or treasury reports as published in a certain newspaper on a certain afternoon, then no further payments would have to be made, but that a suit would be given without further charge. Such contracts usually called for a payment of \$2.00 per week for each of twenty-four weeks, or \$1.00 per week for each of forty weeks. The salesman's promises are usually to the effect that he will deliver a \$60.00 suit of clothes.

There are many tricks and devices in this plan which are operated by the professional, and used to avoid delivering an economic value in return for the money taken. It is quite customary for the professional suit club racketeer to bank the money collected, in a distant city, and about the time he has to begin delivering the suits in some volume, he leaves his few samples and skips to another city a few hundred miles away and starts his operations over again under a different name.

In one of these suit clubs raided in Indianapolis some years ago it was found that more than 1,300 contracts had been sold within approximately six

weeks. Some \$2,600 per week was being collected and banked in Chicago. Had they sold no more contracts; and had they been permitted to continue their operations and collections on those sold, they would have taken no less than \$50,000 from the community. That would have been a potential buying power of 1,000 suits of clothes at \$50 each, or 2,000 suits of clothes at \$25 each. That would have been a potential business of 200 suits of clothes for each of ten different clothing merchants. It might have meant the difference between failure and success for some of them.

Those people who were contract holders were potential customers for the clothing merchants of the city. Depending upon their economic circumstances, they would delay purchase of their suit. Some possibly would be delayed a week or a month, others until later in the season, or until next season. Consequently, the clothing business would be affected. This proposition, in addition to being unsound economically, is a violation of the law, and is extremely unfair competition.

One more illustration: A small merchant in a mid-western city had saved some six or eight thousand dollars with which he had planned to remodel his store, buy new lighting fixtures, etc. He expected to purchase a new delivery truck, take out an additional insurance policy, buy some new household furniture, and send his daughter to college. About the time he was ready to consummate these plans, he was influenced by a stock swindler to withdraw his savings and invest in a doubtful offering, undoubtedly with the promises and the belief that he would be able to increase his principal, realize his ambitions, and still have most of his principal. He learned later that he was a victim of a swindler, and he was unable to do all the things he had planned. He had to take his daughter out of college. He did not buy the additional insurance policy, the new delivery truck, the remodeling job, or the household furniture, and all of these people indirectly lost through the transaction. The college lost a student; the truck company lost the sale of a delivery truck; the furniture store lost the sale of household furniture; the lighting fixture people lost the opportunity to sell the lighting fixtures; the workmen lost the opportunity for the remodeling. All of these people were indirectly affected, although they had no connection with the fraud.

To be sure, a single case in a community is probably unimportant. This business might have been transacted later if the victim recoups his loss, but in any event, the actual transactions are delayed. In the aggregate, such transactions do have a very definite and a very material stagnating effect.

In passing, while it is not strictly a part of this subject, we might consider the stagnating effect of the enormous cost of crime in this country; likewise, the enormous proportion of national in-

come that is going into non-productive channels of taxation.

WHAT IS THE ANSWER TO THE PROBLEM?

Apparently, no one has any short cut to its solution. It is a responsibility of every citizen, of every professional man, of every business man. He cannot truthfully say that it does not affect him. He may say that he is disinterested, but obviously such disinterest is an arbitrary mental condition rather than an actuality.

It is, therefore, his responsibility to cooperate with all forces in the community designed for community protection and welfare. This includes trade associations, civic organizations, public departments and officials. No organization can successfully combat the problem alone. No securities department, police department, or prosecuting attorney's office, can alone cope with the situation.

The greatest difficulty confronting these organizations and officials today is the lethargy and indifference of the public and of business to petty crime, the unwillingness on their part to take the initiative in reporting matters which come to their attention, and unwillingness to give of their time in following through on corrective measures.

I believe that I have recently seen statistics reported in the daily press to the effect that the medical profession, on the average, is the highest paid profession in this country. In consequence of such publicity, they are the target for the sharpshooter and the questionable promoter. Physicians should consider it a professional obligation not to permit themselves to be swindled, even by an amount so small as to be unimportant to them, for in so doing they encourage such operations to continue and thus assist them to mulct their fellow business and professional men.

There never was a time when information of all kinds, on almost any kind of an offering, was as available as it is today. Governmental and private agencies specialize so that information can be obtained on any project or offering in advance. If you will follow the slogans of the Better Business Bureau, "Before You Invest—Investigate," and "Read Before You Sign" carefully and intelligently, you will have contributed your share to the solution of this problem.

ANNUAL POSTGRADUATE COURSE—INDIANAPOLIS

MAY 23 to 27

SEE PROGRAM ON PAGE 260

CHILD WELFARE IN INDIANA

(Continued from page 256)

SUMMARY

It is to be seen that there has been a broadening of the general program for the health and care of children throughout the State of Indiana during the past two years; that these programs are continuing and will perhaps further expand in future years is due to the awakening and action on the part of the public as to the needs for proper child health and child welfare services.

CONCLUSION

1. There has been increasing evidence that proper care of the child is a valuable asset to the State.

2. From statistics compiled in carrying out the foregoing outlined public health and welfare program, it is determined that there remains a large program to improve the health and welfare of the mothers and children of Indiana.

3. From the rapid developments of the activities of the maternal and child-health services and child welfare services during the past year, every evidence points toward better care for mothers and children during the succeeding years.

"DOC QUIZ" ANSWERS—

(Questions on page 227)

Answer 1: The "law of fistula" is that if the normal channel is open, the artificial channel will close spontaneously. There are four exceptions: (1) tuberculosis involving the fistulous tract; (2) mycotic or fungus infections of the tract; (3) new growth; (4) if the mucous membrane of the viscus involved has grown to the skin.

Answer 2: A sinus is an abnormal opening upon the surface of the body which discharges pus and which ends blindly in the subcutaneous tissues. It is usually caused by the presence of an infected foreign body, such as devitalized bone or fascia, or unabsorbable suture material. However, supuration from a fetal remnant may be a cause, also; an example of the latter is a pilonidal sinus.

A fistula is an abnormal communication (1) from a hollow viscus to the exterior, (2) from one hollow viscus to another or to a canal, (3) from a secreting gland to the surface of the body.

Answer 3: No. The patient may have a stricture of large calibre which a sound will not detect. Always test for a stricture with a silk bougie.

Answer 4: No. Symptoms may have subsided, but are apt to recur when medication is discontinued. A platinum loop usually can recover organisms from the urethra even though the discharge has subsided in 48 hours.

Answer 5: Rheumatic infections.

Answer 6: Morphine sulphate in sufficient quantities to insure rest.

Annual Postgraduate Course

THE INDIANA UNIVERSITY SCHOOL OF MEDICINE

THE INDIANA STATE MEDICAL ASSOCIATION

Will be presented at

Indiana University School of Medicine

MAY 23rd TO 27th, 1938

	Monday May 23	Tuesday May 24	Wednesday May 25	Thursday May 26	Friday May 27
8:00	Registration				

CLINICS—CLINICAL BUILDING—INDIANA UNIVERSITY MEDICAL CENTER

8:00 to 11:00	Gynecology Obstetrics Gastro-Intestinal Ear, Nose Throat	Dermatology Medicine Surgery Cardio-Vascular Renal	Cardio-Vascular Renal Eye Traumatic Surgery Therapeutics	Pediatrics Neoplastic Diseases Urology Mental and Nervous	Physical Medicine Medicine Industrial Surgery Fractures
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AUDITORIUM—INDIANA UNIVERSITY SCHOOL OF MEDICINE

11:00 to 12:00	United States Army (Speaker to be announced)	Dr. V. Stefansson New York "Russell-Sage Feeding Experiments"	"Wound Healing" "Burns"	Pediatrics Round Table "Current Practice in the Control of Communicable Diseases in Children"	United States Army (Speaker to be announced)
1:00 to 1:30	Laboratory Demonstrations	Laboratory Demonstrations	Laboratory Demonstrations	Laboratory Demonstrations	Laboratory Demonstrations
1:30 to 2:00	"Diabetic Acidosis and Coma"	"Syphilis in Pregnancy"	"Pneumococcus Pneumonia"	"Congenital Syphilis" P. C. Jeans, M.D. Iowa City	Treatment of Fractures about the Hip Joint
2:00 to 2:30	"Recent Advance in Therapeutics"	"Hemorrhage during Pregnancy and Labor"	Medicine	"Blood Coagulation in Normal and Pathologic States in Infancy and Childhood"	"Our Experience in the Management of Goitre"
2:30 to 3:00	"The Prevention and Cure of Cancer"	"Ovarian Hormones"	Cardio- Vascular Renal	Charles McKhann Boston	"Lymphoblastoma" "Leukemias"
3:00 to 3:30	"Management of Acute Appendicitis"	"Sulfanilamide in Urinary Infections" "Mandelic Acid in Urinary Infections" "Accessory Factors in Urinary Infections"	Cardio- Vascular Renal	Pediatrics Dr. Henry G. Poncher Chicago, Illinois	"Technique of Neurological Examination"
3:30 to 5:00	CLINICO- PATHOLOGICAL CONFERENCE United States Army Participating	CLINICO- PATHOLOGICAL CONFERENCE Dr. Stefansson Participating	CLINICO- PATHOLOGICAL CONFERENCE	CLINICO- PATHOLOGICAL CONFERENCE Dr. Hertzler Participating	CLINICO- PATHOLOGICAL CONFERENCE U. S. Army Participating
6:00 P. M.	County Secretaries' Dinner		State Pediatric Society Dinner	Alpha Omega Alpha Dinner	
8:00	United States Army (Speaker to be announced)	Dr. V. Stefansson New York "The Natural Diet of Man"	Dr. Jas. Plant Newark, N. J. "Juvenile Delinquency"	Dr. A. Hertzler Halstead, Kansas (Subject to be announced)	United States Army (Speaker to be announced)

EVENING MEETINGS AT CALEB MILLS HALL, SHORTRIDGE HIGH SCHOOL, MERIDIAN AND 34th STS.

District Meeting Programs

DISTRICT MEETINGS WILL BE HELD AS FOLLOWS:

First District at Evansville, June 9.
 Second District at McCormick's Creek State Park, May 12.
 Third District at French Lick, May 4.
 Fourth District at Madison (date not announced).
 Fifth District at Terre Haute, May 6.
 Sixth District at Richmond, May 5.
 Seventh District at Indianapolis, (date not announced).

Eighth District at Muncie, May 10.
 Ninth District at Noblesville, May 17.
 Tenth District meeting was held at Valparaiso, April 8.
 Eleventh District at Logansport, May 18.
 Twelfth District at Lake James, May 19.
 Thirteenth District at Plymouth, November 2.

SECOND DISTRICT

May 12, 1938, at McCormick's Creek State Park

Officers

President: Robert Pierson, M.D.
 Secretary: J. S. Brown, M.D., Corlisse
 Councilor: H. C. Wadsworth, Woshington

Program

Beginning at 2:30 p. m., the program will include the following speakers:

Dr. Russell Henry, Indianapolis
 Dr. S. R. Combs, Terre Haute
 Dr. P. M. Harmon, Bloomington

Other speakers whose names were not available for publication will complete the afternoon program, and the meeting will close with a dinner served at the McCormick's Creek State Park hotel.

THIRD DISTRICT

May 4, 1938, at French Lick Springs Hotel

Officers

President: John Mitchell, M.D., Salem.
 Secretary: Ivon Clork, M.D., Pooli.
 Councilor: W. H. Gerner, M.D., New Albany.

Program

Program will begin at ten o'clock in the morning. Speakers will include:

H. S. Andrews, M.D., Louisville, Kentucky.
 C. J. Clark, M.D., Indianapolis.
 Robert M. Dearmin, M.D., Indianapolis.
 James R. Hamilton, M.D., Mitchell.
 George R. Dillinger, M.D., French Lick.

Luncheon will be served at the French Lick Springs Hotel. Arrangements will be made for entertaining visiting ladies.

FIFTH DISTRICT

May 6, 1938, at the Elks Club in Terre Haute.

Officers

President: A. W. Covins, M.D., Terre Haute.
 Secretary: J. V. Richort, M.D., Terre Haute.
 Councilor: O. O. Alexander, M.D., Terre Haute

Program

This meeting of the Fifth District Society will be held in conjunction with the Vigo County Medical

Society, the Terre Haute Academy of Medicine, and the Aesculapean Society of the Wabash Valley. It will be a dinner meeting.

Guest Speaker: R. A. Griswold, M.D., assistant professor of surgery at the University of Louisville Medical School.

Subject: "Surgical Procedures in Office Practice."

SIXTH DISTRICT

May 5, 1938, at Richmond-Leland Hotel in Richmond

Officers

President: J. L. Allen, M.D., Greenfield.
 Secretary: Frank Green, Jr., Rushville.
 Councilor: Somuel Kennedy, M.D., Shelbyville.

Program

Morning Session:

10:00 to 12:00 Manikin demonstration and moving pictures.

Speaker: G. W. Gustafson, M.D., Indianapolis.
 Subject: "Normal Delivery and Breech Presentation."

Noon Luncheon.

Women guests will be entertained by wives of members of the Wayne-Union Medical Society.

Afternoon Session:

2:00 Moving pictures: "Treatment of Asphyxia Neonatorum."

2:15 "Care of the Newborn and Premature Infant."
 Speaker: Lyman T. Meiks, M.D., Pediatric Resident, Riley Hospital, Indianapolis.

3:15 "Treatment of Hemorrhage of Late Pregnancy."
 Speaker: H. Close Hesseltine, M.D., assistant professor of obstetrics and gynecology, University of Chicago.

(This program has been arranged and sponsored by the officers of the Sixth District Medical Society and the Indiana State Medical Association with the cooperation of the Bureau of Maternal and Child Health of the Indiana State Board of Health.)

EIGHTH DISTRICT

May 10, 1938, at Hotel Roberts in Muncie

Officers

President: E. H. M. Clouser, Muncie.
 Secretary: C. V. Rozelle, Anderson.
 Councilor: M. A. Austin, Anderson.

Program

3:00 p. m. Symposium on Gallbladder Disease.

"Diagnosis and Treatment (Medical) of Gallbladder Disease." By **C. F. G. Brown, M.D.**, Professor of Medicine, Northwestern University School of Medicine.

"Radiological Findings in Gallbladder Disease." By **B. R. Kirklin, M.D.**, Director of Section on Radiology, the Mayo Clinic, Rochester, Minn.

"Surgical Treatment of Gallbladder Disease." By **John L. Lindquist, M.D.**, Instructor in Physiological Surgery, Northwestern University School of Medicine.

Discussion will be opened by Frank Lahey, M.D., Boston.

Adjournment for dinner at Hotel Roberts at 6:30 p. m.

Evening meeting will be a joint meeting with the Muncie Academy of Medicine.

7:30 p. m. Guest speaker: **Frank Lahey, M.D.**, of the Lahey Clinic, Boston, Mass.

NINTH DISTRICT

May 17, 1938, at Noblesville

Officers

President: E. D. Havens, M.D., Cicero.

Secretary: J. C. Ambrose, M.D., Arcadia.

Councilor: F. T. Romberger, M.D., Lafayette.

*Program***Morning Session:**

8:30 Registration at Levison Room, High School Building.

9:00 Annual golf tournament at Forest Park Golf Course.

9:30 Trap shoot at Elk's Club trap range.

10:00 Manikin demonstration and obstetrical review
Speaker: **Foster J. Hudson, M.D.**, Indianapolis.

12:15 Luncheon for officers and delegates at Wright's Cafeteria.

1:00 p. m. Luncheon and card party for ladies.

Afternoon Session:

2:00 "Treatment of Syphilis During Pregnancy." By **John E. Dalton, M.D.**, Indianapolis.

2:30 "Toxemias of Pregnancy." By **Norman R. Kretzschmar, M.D.**, Associate Professor of Obstetrics, University of Michigan, Ann Arbor.

Discussant: G. W. Gustafson, M.D., Indianapolis.

3:00 "Prevention and Treatment of Common Contagious Diseases of Childhood." By **Gerald Kempf, M.D.**, Indianapolis.

Evening Session:

6:00 Banquet at Forest Park.

7:00 Remarks by officers of Ninth District Society and officers of Indiana State Medical Association.

7:30 Guest speaker: **Jepson Cadou**, Washington, D. C., and Indianapolis.

ELEVENTH DISTRICT

May 18, 1938, at Logansport

(49th Semi-Annual Meeting)

Officers

President: R. G. Johnston, M.D., Huntington.

Secretary: O. G. Brubaker, M.D., North Manchester.

Councilor: Ira Perry, M.D., North Manchester.

*Program***Morning Session:**

9:00 to 12:00 Golf tournament at Logansport Country Club. Greens fee 75c.

Afternoon Session:

Place: Auditorium of City Hall at Sixth and Broadway.

1:30 Business meeting.

1:30 Ladies entertainment—special program.

2:00 "Pitfalls in the Diagnosis of Acute Abdominal Conditions." **Ross C. Ottinger, M.D.**, Indianapolis.

"Uses and Abuses of Sulfanilamide." By **Gerald F. Kempf, M.D.**, Indianapolis.

General discussion.

"Acute Perforations of the Gastro-Intestinal Tract." By **S. D. Malouf, M.D.**, Peru.

Evening Meeting:

6:00 Banquet at Logansport Country Club.

Speaker: **R. N. Harger, Ph.D.**, Professor of Biochemistry and Toxicology at Indiana University School of Medicine.

Subject: "Tests for Intoxication in Automobile Drivers," or "How Drunk Are You?"

TWELFTH DISTRICT

May 19, 1938 at Potawatomi Inn, Pokagon

State Park, Lake James, Indiana.

Officers

President: H. O. Williams, M.D., Kendallville.

Secretary: S. R. Mercer, M.D., Fort Wayne.

Councilor: A. J. Sparks, M.D., Fort Wayne.

*Program***Afternoon:**

Speaker: **D. Ben Martinez, M.D.**, Associate Professor of Obstetrics, University of Pittsburgh.
Subject: "Cesarean Section—Indications and Contra-Indications."

Business meeting, with short talks by State President Dr. Herman Baker, President-Elect, Dr. E. M. Van Buskirk, and Executive Secretary, Thomas A. Hendricks.

6:30 Dinner. The dinner and evening session are for members and their wives.

Evening:

Speaker: **J. H. Muyskens, Ph.D.**, of the Institute of Human Adjustment, University of Michigan.
Subject: "The Emergent Process of Speech."

Under the Capitol Dome

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, and Dr. Herman M. Baker, president of the Indiana State Medical Association, testified before the House Interstate Commerce Committee at Washington on Thursday, April 14, in support of the Bulwinkle bill that provides for a thirteen-year program with graduated increasing millions of dollars spent in a nation-wide fight to stamp out syphilis. Dr. Baker told the committee that the problem is a national one rather than a state one because germs do not respect state lines. Dr. Harvey told the committee that syphilis is the cause of more than twenty per cent of insanity in Indiana. Expense of caring for this group is \$600,000 annually, while the state is spending practically nothing for prevention. Dr. Harvey also testified that eight per cent of the women examined at a prenatal clinic in Indiana were afflicted with syphilis and that four per cent of the children admitted to the James Whitcomb Riley Hospital are congenital syphilitics.

Two Indiana congressmen, Representatives Pettengill and Halleck, are members of the committee.

NEW RULES FOR LICENSURE OF GRADUATES OF FOREIGN MEDICAL SCHOOLS

Text of the new rules governing examination and licensure for graduates of foreign medical schools has been made public by the State Board of Medical Registration and Examination. The rules follow:

After January 11, 1938, a graduate of any school of the Healing Art which is located outside of the United States and its possessions, who makes application for examination to the Indiana State Board of Medical Registration and Examination, shall comply with the following requirements:

"A" Submit pre-medical qualifications to conform with the minimum pre-medical requirements of the Indiana Board; a complete record of the professional courses upon which the diploma has been granted; the diploma, which shall be from a school recognized by the Indiana State Board of Medical Registration and Examination; and a license to practice his profession in the country wherein the school of graduation is located, or in his native country. The diploma and other documents shall be presented in the original form, with translated copy of each attached thereto, and shall be visaed by the U. S. Consul wherein the school of graduation is located.

"B" In addition to the requirements detailed above, an applicant for examination shall submit evidence of having repeated the senior year in, and graduated from a school of his profession located in the United States which is recognized by the Indiana State Board of Medical Registration and Examination.

Reciprocity

A graduate of any school of the Healing Art which is located outside of the United States and its possessions, who makes application to the Indiana State Board of Medical Registration and Examination for a reciprocal license, shall comply with the same requirements as for examination, except that an applicant who is the possessor of a license obtained by examination prior to January 11, 1938, in a state with which Indiana reciprocates, and was practicing in that state prior to January 11, 1938, shall be exempt from Paragraph "B."

A fee of \$2.00 for evaluation of credentials shall accompany all applications.

Applications for examination must be filed with the office of the Board at least four months in advance of examination date.

PUBLIC HEALTH SERVICE

A total of twenty-three counties, principally located in southern Indiana, receive full-time public health service from the State, according to Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

Since the passage of the Social Security Act, the health department has been steadily pushing full-time public health service to rural and economically distressed communities. With funds available under the Social Security program, the department has been able to provide full-time medical, nursing and sanitary services in communities long neglected.

The state has set up district health departments with a physician, nurse, sanitary engineer and clerk. Services of the district departments include medical and nursing service, immunization against communicable disease, field trips to patients by nurses and physicians, consultations with local physicians on the diagnosis and study of diseases of public health significance, inspections by dentists, admissions to hospitals, inspection and installation of approved private and semi-private water supplies and excrement disposal systems, inspection of food handling establishments, dairy farms and milk plants and laboratory examinations.

Prior to the passage of the Social Security Act, there was one full-time public health nurse to 31,000 persons in rural areas. This ratio has been reduced to 1 to 17,000. The state has 71 nurses in rural areas.

The Social Security program also enabled the board to set up the Bureau of Maternal and Child Health which operates a mobile dental unit for indigent children and free nursing care in the homes of indigent mothers at the time of confinements. It gives nursing assistance in home deliveries to all physicians who request it for their poor patients.

RESPONSIBILITY FOR CARE OF INSANE

An opinion clarifying the question of where insanity proceedings should be started in cases where the subject moves from one county to an-

other has been issued by Omer S. Jackson, attorney general.

Written to Thurman A. Gottschalk, administrator of the State Department of Public Welfare, the opinion held that "where a person who has resided in one county in Indiana for several years and then moved to another county to live and after residing in this latter county for a few months, lost his mind, the proceedings to determine his mental condition should be brought in the county where he is actually residing at the time when such mental infirmity occurred."

The opinion quoted the 1929 Acts which say that "any insane person residing in the state of Indiana and having a legal settlement in any county therein shall be entitled to be maintained and to receive medical treatment in the hospital for the insane of the hospital district in which such insane person resides," and then defined "legal settlement as the place where a person actually resides and has an intention to live." The attorney general also cited an earlier opinion which held that "as between counties of the state of Indiana, there is no prescribed time of residence in order to make such residence a basis for determining the institution to which the patient shall be sent."

DEPUTY HEALTH OFFICERS

Under existing laws health officers may not employ a special deputy for the purpose of establishing quarantine, disinfecting quarantined premises and releasing people from quarantine, and bind the county to pay out of the health appropriations for the personal services of such a deputy, according to an opinion issued by Omer S. Jackson, attorney general. The opinion was written for Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

The attorney general held that the 1935 health laws provide that the salary and the actual necessary operating expenses of the county health officer shall be paid out of the treasury of the county, but makes no provision for employment of a deputy.

"Operating expenses is a term distinctly differing from those expenses known as personal expenses and personal services," the opinion said. "There is no doubt that it was the intention of the Legislature to place the responsibility for performance of all personal services upon the county or city health officer, for which such officer is to be paid a specific salary or remuneration as hereinabove set out (referring to the percapita basis of health officer salaries)."

DR. HICKS NAMED TO MEDICAL BOARD

Dr. James M. Hicks, of Huntington, has been made a member of the State Board of Medical Registration and Examination, succeeding Dr. Leslie Sammon, Shelbyville, who died recently.

Appointed by Governor Townsend, Dr. Hicks is to represent the homeopathic doctors on the board.

PAYMENT FOR ADMINISTERING ANTITOXIN OR ANTIRABIC VIRUS TO THE INDIGENT

In response to a request from an Indiana physician, Dr. Verne K. Harvey, director of the Indiana State Board of Health, has given the following information:

"Unfortunately, the free antitoxin law does not specify whose duty it is to pay the physician for the administration of free antitoxin or antirabic virus to indigent patients. If the case in question is a pauper—that is, receiving aid from the township trustee—then it becomes the duty of the trustee to pay for such service. If the case is indigent and is not receiving aid from the trustee, it is the duty of the county to honor such bill for medical services. The administration of the antirabic virus is usually considered a preventive measure and preventive measures are considered the responsibility of the county or city rather than the township trustee.

"The best way to avoid trouble on such cases is to secure an approval from the health officer of the jurisdiction in which the patient lives for the payment of the services before the administration of the antirabic virus is started.

"You will notice that we make a distinction between a pauper and an indigent case. A pauper is someone who is receiving aid from the trustee or who makes application to the trustee and declares himself to be a pauper while an indigent, unless he accepts trustee aid or makes application, does not become a pauper. The trustee can pay for such cases as mentioned above if he wants to accept them as paupers or if the patient applies directly to the trustee for such aid."

SEE PROGRAMS FOR
POSTGRADUATE COURSE—PAGE 260
DISTRICT MEETINGS—PAGE 261

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASES Monthly Report, March 1938

DISEASES	March 1938	Feb. 1938	Jan. 1938	March 1937	March 1936
Tuberculosis	111	148	183	213	142
Chicken pox	389	524	507	446	263
Measles	4,245	2,435	1,481	172	47
Scarlet Fever	668	780	953	1,016	1,187
Smallpox	173	175	259	17	22
Typhoid Fever	3	3	5	3	5
Whooping Cough	94	86	121	283	162
Diphtheria	135	218	295	50	68
Influenza	74	83	109	357	222
Pneumonia	77	107	138	141	80
Mumps	88	129	27	222	372
Poliomyelitis	2	1	1	2	0
Meningitis	8	6	2	12	18
Trachoma	1	1	0	0	0
Undulant Fever	2	0	1	1	0

Voice of the Doctor

SULFANILAMIDE

July 7, 1937

To the Editor:

This report is the result of my experience in treating four cases of acute and chronic gonorrheal infections. No effort was made to make the diagnosis other than the ordinary blue stain. (After forty years, I still believe that Loeffler's stain will make a relatively accurate diagnosis.)

Case I. J. M. First seen May 15, 1937. Slide shows extracellular and intracellular diplococci. On May 20, 1937, the patient was given a number of sulfanilamide tablets, five grains each, three or four tablets to be taken each day. He was last seen on May 21, 1937. This patient was referred to Dr. H. L. Kretschmer who, on May 28, 1937, wrote saying "When he came to the office he had tingling in the fingers and great thirst, so we automatically cut down the sulfanilamide tablets which he was taking." Three letters have been received from the patient: the first one states that he was told to take four tablets four times a day for two days, three tablets three times a day for three days, two tablets three times a day for six days, and one tablet three times a day for seven days. In spite of the fact that the man had tingling when he first came to the doctor, he was able to tolerate a good deal more than he could at the beginning. On July 1 the last letter received from this patient ends with the paragraph: "June 26—drank beer. No bugs. June 30—drank beer. July 1—bugs."

Case II. F. G. Gonorrheal infection in 1932 or 1933. Has had rheumatism for two or three years. Repeated examinations and examinations of the prostate and vesicular massaging showed no G. C. On June 20 after an instillation of a quarter percent of silver nitrate, I made a slide which showed extracellular and intracellular diplococci. He began the use of sulfanilamide tablets, three tablets four times a day. He was able to tolerate this dosage and his improvement with other measures is astounding. On July 3 the tablets were discontinued and he was treated in the old-fashioned way.

Case III. T. G. Age fifty. Initial gonococcus infection on June 16, 1937. Slide shows extra and intracellular diplococci. He was given three sulfanilamide tablets the first day; the next day he took three tablets three times during the day. On the following day he returned complaining of weakness and dizziness and I reduced the dosage to one or two tablets three times daily. On June 21, upon examination, there was no evidence of any acute infection. He returned on June 26 and, to all intents and purposes, this patient was accepted as a cured case of gonococcus infection.

Case IV. On June 26 a young man, aged 23, came in with an acute initial gonococcus infection, and the slide was positive for extra- and intracellular diplococci. On June 26 he took six tablets of sulfanilamide and on June 27 he took three tablets, four times during the day. On June 28 he was supposed to take three tablets four times during the day, but at 7:45 in the evening he telephoned that his temperature was 101; he had taken nine tablets. He was instructed to go to bed, to discontinue the sulfanilamide tablets, and restrict his diet to liquids. The next afternoon, July 29, he telephoned saying that his temperature was 104. When I called upon him at eight o'clock in the evening his temperature was 102. (Note that he had discontinued the sulfanilamide tablets on June 27.) On June 30th his temperature was normal. He was started again on sulfanilamide, taking six tablets a day. The slide showed intracellular diplococci. The patient called attention to the fact that if he took three tablets three times per day, he immediately had high temperatures, but if he took only three or four tablets during a day he had some headache. At the time of this report, July 7th, he has been without fever for five days, and is doing fairly well on four to six tablets a day, but the slide still shows extra- and intracellular diplococci.

In the July third (1937) issue of The Journal of the American Medical Association there is published an article on "The Development of Acute Hemolytic Anemia during the Administration of Sulfanilamide," by A. M. Harvey, M.D., and C. A. Janeway, M.D., Baltimore. Perhaps this young patient of mine was suffering from the same sort of anemia.

In conclusion, these four cases have followed about the usual course of an average case of acute gonorrheal infection; perhaps other physicians have experienced the same results that I have had.

BERNHARD ERDMAN, M.D.

Indianapolis.

A. M. A. COUNCIL ON PHARMACY AND CHEMISTRY

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

The Drug Products Co.

Hyposols Sodium Cacodylate, $\frac{3}{4}$ grain (0.048 Gm.), 1 cc.

Hyposols Sodium Cacodylate, $1\frac{1}{2}$ grains (0.10 Gm.), 1 cc.

Hyposols Sodium Cacodylate, 3 grains (0.194 Gm.), 1 cc.

Hyposols Sodium Cacodylate, 5 grains (0.324 Gm.), 1 cc.

Hyposols Sodium Cacodylate, $7\frac{1}{2}$ grains (0.5 Gm.), 5 cc.

Eli Lilly & Co.

Sulfanilamide Tablets, $7\frac{1}{2}$ grains

Parke, Davis & Co.

Tablets Sulfanilamide, $7\frac{1}{2}$ grains

Deaths



William H. Kennedy, M.D.

William H. Kennedy, M.D. of Indianapolis, died April 21, following a long illness.

Dr. Kennedy was born in Shelbyville in 1877. He took his undergraduate work at Indiana University and graduated from the Medical College of Indiana, Indianapolis, in 1903. He conducted a general practice and was surgeon for the Big Four Railroad at Shelbyville. In 1918 he moved from Shelbyville to Indianapolis and later took post-graduate work at the University of Pennsylvania after which he limited his practice to radiology. For many years he was associated with his brother, the late Dr. Thomas C. Kennedy, who was president of the Indiana State Medical Association in 1910.

Dr. Kennedy was assistant professor of radiology at the Indiana University School of Medicine. Always interested in medical organization work, and an indefatigable worker in that field, he served as a member of the Executive Committee of the Indiana State Medical Association from January 1929 to January 1936, and as chairman of that committee from October 1931 to January 1936. When he resigned this post, an editorial note in *THE JOURNAL* concerning his resignation included the following: "As chairman of the Executive Committee which guides the business affairs of the Indiana State Medical Association and of *THE JOURNAL*, Dr. Kennedy has given his counsel and has seen the affairs of the Association weather the depression period and come out in better shape than ever in the history of the Association. He has earned his release from strenuous duties, and we know that column after column of laudation would be inadequate to express the thanks and appreciation that rightfully belong to Dr. Kennedy for the myriad thankless albeit wisely helpful tasks he has performed in the interests of our Association."

Dr. Kennedy served as chairman for the Indiana organization of the American Society for the Con-

trol of Cancer for several years and was the instigator of cancer control activities in Indiana.

Dr. Kennedy was a member of the Indianapolis Medical Society, the Indiana State Medical Association, the American Medical Association, the Radiological Society of North America, the American Radium Society, and the American Society for the Control of Cancer.

Dr. Kennedy was a member of a family of physicians. His father, grandfather and great grandfather were physicians; three brothers and four uncles were physicians. He is survived by the widow and one son, William H. Kennedy, Jr., of New York, and a brother, Dr. Samuel Kennedy of Shelbyville.

The Executive Committee of the Indiana State Medical Association has issued the following statement concerning Dr. Kennedy's service:

As chairman for many years of the Executive Committee of the Indiana State Medical Association which directs the policies of the state medical organization, Dr. William H. Kennedy of Indianapolis was most energetic and creative but always quiet and retiring. He preferred to work in the background in medical organization matters, tirelessly planning statewide medical programs, campaigns, and projects, and placing others in the foreground to carry them into effect.

As chairman of the Executive Committee from 1931 to 1936, he served during much of the depression when a tremendous burden was placed on the medical profession which forced the doctors of the state to render more and more charity service to the public. Perhaps his most notable achievement for the profession and for the state as a whole came as a result of the services he rendered as chairman of the Governor's Medical Service Committee which functioned as a branch of the statewide relief commission. In this capacity he inaugurated the arrangements which were made between the Indiana State Medical Association and the State Relief Commission for rendering medical services to those on relief rolls. In 1932 he proposed and directed the statewide survey into the township trustee system of medical care. The facts obtained from this survey and the subsequent establishment of the Indiana system for medical care of indigent persons was used as a basis for the nationwide medical care program which was undertaken later by the Federal Emergency Relief Administration. In any arrangements which he made with the State, he was a firm advocate of the principle that medical care of the indigent should be under the direction of the medical profession and wherever possible the patient should have the right to choose his own physician.

Many of the policies and procedures in force at the present time in conducting the Indiana State Medical Association came as a result of suggestions of Dr. Kennedy. Although he was always retiring, those who worked with him will always remember the many constructive activities undertaken by the State Association for which he was directly responsible.

EXECUTIVE COMMITTEE OF THE INDIANA
STATE MEDICAL ASSOCIATION.

C. A. Nafe, M.D., *Chairman*.
C. H. McCaskey, M.D.
Herman M. Baker, M.D.
E. M. Van Buskirk, M. D.
M. A. Austin, M.D.



J. B. Rogers, M.D.

Jesse B. Rogers, M.D., of Michigan City, died April twenty-first, aged seventy-two years. Dr. Rogers had been ill for more than a year. He was president of the Clinic Hospital, Inc., which he helped to organize in 1921. It was estimated that Dr. Rogers had attended the birth of six thousand babies during the years of his medical practice.

Dr. Rogers graduated from the Hahnemann Medical College and Hospital, Chicago, in 1895, and was a member of the LaPorte County Medical Society, the Indiana State Medical Association, the American Medical Association, and the Associated Anesthetists of the United States and Canada. He was actively interested in medical organization work, and served as councilor for the Thirteenth District for a three-year period beginning in 1930. He also was chairman of the committee on arrangements for the state convention held in Michigan City in 1932.

* * *

Arthur L. Mikesell, M.D., of Fort Wayne, died April eighth after a short illness. He was seventy years old. Dr. Mikesell graduated from the Chicago Homeopathic College in 1892 and started his practice in Fort Wayne in 1895. He was a charter member of the Lutheran hospital staff in Fort Wayne. He was president of the Fort Wayne (Allen County) Medical Society for the term 1933-

1934, and was also a member of the Indiana State Medical Association and a Fellow of the American Medical Association.

* * *

Milton T. McCarty, M.D., of Frankfort, died April eighth. Dr. McCarty was sixty-four years old. He was serving as city health officer of Frankfort at the time of his death. Dr. McCarty graduated from the Central College of Physicians and Surgeons in 1902. He served as state senator from Carroll and Clinton counties and, during the session of 1908-1911, he was the youngest member in the senatorial body. Dr. McCarty was medical director for the Peoples Life Insurance Company.

* * *

Clarence G. Rea, M.D., of Muncie, died April ninth, in Rochester, Minnesota. Dr. Rea was fifty-eight years old. He served overseas with the medical corps during the World War and was a former city health officer for Muncie. Dr. Rea graduated from Jefferson Medical College of Philadelphia, Pennsylvania, in 1904.

* * *

Charles F. C. Hancock, M.D., of Jeffersonville, died March twenty-seventh, aged seventy-one years. Dr. Hancock retired from active practice a few months ago. He graduated from the Medical College of Ohio, Cincinnati, in 1887 and had practiced in Jeffersonville forty-six years. Dr. Hancock served as a member of the Indiana state senate from Clark County in 1904. He was a member of the Clark County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Charles M. Clayton, M.D., of Indianapolis, died April first, aged sixty-one years. Dr. Clayton graduated from the Medical College of Indiana, Indianapolis, in 1902.

* * *

Daniel R. Saunders, M.D., of Franklin, died April fifth, aged eighty-five years. Dr. Saunders began the study of medicine when he was past forty years of age, and graduated from the Southwestern Homeopathic Medical College and Hospital, Louisville, Kentucky, in 1897. He practiced in North Vernon for twelve years, and began his practice in Franklin in 1911. He served as county health officer for Johnson County, and was an honorary member of the Johnson County Medical Society, and the Indiana State Medical Association.

* * *

A. H. Jones, M.D., of White Water, near Richmond, was drowned in the Gulf of Mexico when a boat in which he was fishing capsized, March seventh. Dr. Jones was sixty-eight years old. He graduated from the Curtis Physio-Medical Institute of Marion, Indiana, in 1894.

News Notes

Miss Louise Link of Plymouth and Dr. W. F. Montgomery of Indianapolis were married in Indianapolis, April 2.

Dr. John W. Hendricks and Miss Jean Brown, both of Indianapolis, have announced their wedding.

Mrs. Mary L. Kelly, wife of Dr. Walter F. Kelly of Indianapolis died March twenty-second at her home in Indianapolis.

Dr. J. Roy Burlington celebrated the forty-first anniversary of the beginning of his practice of medicine in Attica on March twenty-fourth.

Dr. M. L. Ruth has taken over the office of the late Dr. F. J. Spilman in Connerville.

Dr. Robert M. Moore of Indianapolis was re-elected governor for Indiana of the American College of Physicians at the recent annual meeting held in New York City.

Dr. H. N. Middleton of Indianapolis has been taking postgraduate work in electrocardiographic diagnosis at the University of Michigan.

The official call to the officers, fellows and members of the American Medical Association has been made for the eighty-ninth session to be held in San Francisco, June 13 to June 17. The House of Delegates will convene on Monday, June 13.

The scientific assembly will open with the general meeting on Tuesday, June 14, at 8:30 p. m. The various sections of the scientific assembly will meet Wednesday, June 15, at 9 a. m. and at 2 p. m. and subsequently according to their programs.

Leaders in the antisiphilis campaign in Indianapolis held a luncheon meeting at the Hotel Lincoln in Indianapolis, April fourteenth. Dr. Edward L. Keyes of New York was the guest speaker.

Dr. and Mrs. Paul Showalter of Waterloo will leave New York, May 19, on the *SS Europa* for

a combination study and pleasure tour abroad. They will visit England, France, Germany, Holland, Hungary, Poland, and Czechoslovakia.

Dr. H. H. Botts, medical officer in charge of the U. S. Veterans Hospital in Marion, has been transferred to the government hospital at Chillicothe, Ohio. He has been replaced by Dr. D. J. Murphy who was head of the Chillicothe Hospital.

The annual meeting of the Indiana State Dietetic Association was held at the Propylaeum in Indianapolis, April eighth, with Miss Lenna F. Cooper, president of the national dietetic association, as guest speaker.

The Indiana Tuberculosis Association held its twenty-seventh annual session, April 20th, in Indianapolis. Headquarters were at the Hotel Lincoln. Dr. C. C. Applewhite of Chicago and Dr. R. G. Bloch of Chicago were guest speakers.

Dr. J. N. Kelly of LaPorte was elected president of the Tri-State Medical Association at the sixty-fifth annual session held in Findlay, Ohio, April 12. Councilors include Dr. L. T. Rawles of Fort Wayne and Dr. G. O. Larson of LaPorte. The 1939 meeting will be held in South Bend.

The fourteenth scientific sessions of the American Heart Association will be held June 10 and 11, 1938, at the Sir Francis Drake Hotel in San Francisco. On June 10 the general heart program will be given, and on June 11 the program of the Section for the Study of the Peripheral Circulation will be presented.

The Tenth District Medical Society meeting, held at the "Spa" near Gary, April 8, resulted in the election of Dr. Frank R. Doll of Whiting as president to succeed Dr. G. R. Douglas of Valparaiso, Dr. H. L. Lauer of Whiting as vice-president, and Dr. Louis Wisch of Whiting as secretary-treasurer. Dr. James White of Gary was elected councilor to succeed Dr. N. K. Forster of Hammond.

At the recent annual meeting of the American College of Physicians in New York City, Dr. John H. Warvel and Dr. R. H. Moser of Indianapolis were advanced to fellowship in the College. Dr. George S. Bond, Dr. B. D. Rosenak, Dr. Franklin B. Peck, all of Indianapolis, and Dr. A. N. Ferguson of Fort Wayne were elected associates in the College.

Dr. Irvin Abell of Louisville, Kentucky, president-elect of the American Medical Association, was the recipient of the Laetare medal which has been bestowed annually since 1883 by the University of Notre Dame upon an outstanding member of the Catholic laity. It is recognized as the highest honor that a Catholic layman can receive in the United States.

Thirty physicians from thirteen states attended the annual two weeks' postgraduate course on the eye, ear, nose and throat presented at the Indiana University Medical Center, in April. Dr. Dorothy Wolff of the Washington University School of Medicine, St. Louis, was guest speaker at the opening dinner. Indiana speakers included Drs. C. P. Clark, W. D. Gatch, B. D. Myers, E. E. Holland, Robert M. Moore and John F. Barnhill.

Dr. James A. Pickett, a graduate of Indiana Medical College in 1906, died at El Paso, Texas, January 27, 1938. After graduation he practiced for three years in Evansville, and left there in 1909 because of a throat and lung trouble, when he was told that he would have to live in the Southwest for the rest of his life. Dr. Pickett had the reputation of being one of the finest plastic surgeons in the Southwest. A memorial fund is being established by Dr. Pickett's friends to carry on his work of correcting harelips and cleft palates in children.

The Fourth annual session of the American Neisserian Medical Society will be held in Washington, D. C., May 16 and 17, 1938, in the Public Health Auditorium at 19th Street and Constitution Avenue, N.W. The session will open with a symposium on sulfanilamide. Complete program may be obtained from the secretary, Dr. Oscar F. Cox, 113 Bay State Road, Boston, Massachusetts.

Dr. and Mrs. C. O. McCormick of Indianapolis sailed April 20 from New York on the *SS Manhattan* for Amsterdam where Dr. McCormick will address the International Congress of Obstetrics and Gynecology during the week of May 4 upon "Analgesia in Labor." After a few days stay in London, they will visit Germany, Austria, Italy, Switzerland, and France, and will embark homeward June 1 on the *Queen Mary*.

The eleventh annual graduate fortnight of the New York Academy of Medicine will be held October 24 to November 4, 1938. This year's subject is "Diseases of the Blood and Blood-Forming Organs." Program and registration blank may be obtained by writing to Dr. Mahlon Ashford, New

York Academy of Medicine, 2 East 103rd Street, New York City.

The Indiana Academy of Ophthalmology and Otolaryngology held its annual meeting in the Claypool Hotel, Indianapolis, April 6, with approximately 100 members in attendance. In the absence of the president, Dr. E. E. Holland of Richmond, Dr. J. Kent Leasure of Indianapolis presided. Morning and afternoon sessions were held, followed by a dinner in the evening. Dr. E. C. Rosenow of The Mayo Clinic was the after dinner speaker.

Officers elected are Dr. C. W. Rutherford of Indianapolis, president; Dr. Robert Smith of Newcastle, first vice-president, and Dr. Marlow W. Manion of Indianapolis, re-elected secretary-treasurer. Dr. E. E. Holland of Richmond and Dr. Edward Davis of Muncie are new members of the council.

The following Indiana physicians have received the certificate of the American Board of Ophthalmology, according to the register for January 1, 1938:

Evansville: Marcus Ravdin. Fort Wayne: Eugene L. Bulson. Gary: R. F. Carmody. Hammond: Hedwig S. Kuhn, Hugh A. Kuhn. Indianapolis: E. O. Alvis, D. A. Bartley, Cecil P. Clark, E. W. Dyar, Jr., Myron S. Harding, Wm. F. Hughes, B. J. Larkin, John M. Masters, Robert J. Masters, D. Hamilton Row, C. W. Rutherford, Joel Whitaker. Lafayette: R. R. Calvert. Richmond: E. E. Holland. South Bend: J. V. Cassady, C. J. Rudolph. Terre Haute: O. T. Allen, N. S. McBride, J. W. McEwen. Valparaiso: Philip M. Corboy.

The Chicago Tumor Institute, chartered in Illinois, not for profit, opened March 21, 1938. Two unique features of the Institute are the assembling of a group of leading cancer authorities from various medical centers of the world to collaborate in the study of the cancer problem, and the formation of an organization devoted exclusively to the study of cancer. While the scope of the activities of the Chicago Tumor Institute will be both national and international, the contributions to the funds of the Institute have been made entirely by citizens of Chicago. One of the functions of the Institute is to train physicians and surgeons who desire to specialize in the diagnosis and treatment of cancer. Approximately 200 physicians from the United States, Canada, South America, Mexico, and the Hawaiian Islands already have applied for courses of instruction. The Institute will be directed by a scientific committee consisting of Dr. Max Cutler of Chicago; Dr. Henri Coutard of the Curie Institute, Paris; Sir George Lenthal Cheate of London; Dr. Arthur H. Compton of Chicago and Dr. Ludvig Hektoen of Chicago.

MANY PHYSICIANS AND THEIR FAMILIES WILL "SEE AMERICA" EN ROUTE TO THE CONVENTION IN SAN FRANCISCO

The American Express Company, agents for the Convention tours, say that they have already received a very excellent response from physicians and their families, which indicates that the San Francisco Convention will be a great success. It is recommended that members of this Society who intend to participate in the Convention apply at an early date for their tour reservations, as this will assure them of receiving the type of pullman accommodations they desire.

This is the first time that the physicians have been offered the facilities of de luxe special trains visiting the scenic attractions of the West, at a very nominal all-expense cost from your home city. Traversing a route that contains many wonders, one's particular preferences are bound to be among them. For instance, the Indian Pueblo District with its remnants of an ancient civilization long vanished from this continent. The Grand Canyon offers its grandeur of scenic attractions. Southern California, its glowing, sun-filled cities and orange empires, Spanish Missions, Catalina Island and the Pacific rolling up to the edge of white sands. That is the route to San Francisco and the Convention.

Returning, there is a choice of two routes. One includes the charming cities of America's Northwest: Portland, Seattle, Victoria, Vancouver and the majestic Canadian Rockies and its resorts. Route Two winds through Yellowstone National Park and its world-famous geyser region, through Salt Lake City, and the scenic beauties of the Royal Gorge, Colorado Springs and the mile-high city, Denver.

That is but a rough outline of the itineraries offered to physicians planning to attend the Convention this June. These special train tours are restricted to physicians, their friends and families, and have been made possible through the united interest and support of twenty-five state medical societies which makes it possible to offer the tours on an economical, all-expense basis. This is an ideal opportunity to enjoy a wonderful vacation with your family and in the company of friends and colleagues in the Society and in other state Societies.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

Mrs. Fred Wishard, state president, has visited seven of the county societies: Madison at Anderson, Floyd at New Albany, Wabash at North Manchester, Delaware-Blackford at Muncie, Marion at Indianapolis, Dubois at Huntingburg, and Vanderburgh at Evansville.

The Delaware-Blackford auxiliary entertained at a dinner Tuesday night, March 15, at the home of Mrs. O. M. Deardorff. Mrs. Wishard spoke of the plans of the auxiliary. Mrs. I. N. Trent discussed her recent trip to Mexico.

Madison County Auxiliary use printed programs at their monthly meetings. Their big project has been organizing a guild to the St. John's Hospital in Anderson. The details will be given in the next issue.

Floyd County is putting on a vigorous campaign against tuberculosis.

Marion County presented a public relations program on March 25 in the William H. Block Auditorium with Mrs. W. E. Tinney presiding. The subject material was presented in a symposium. Dr. Joseph M. Barry, president of the Indianapolis Board of Health, spoke on "The Value of Home Training in Anti-Syphilitic Program," and Dr. Verne K. Harvey spoke on "Indiana Marriage Laws."

The youngest auxiliary, Dubois County, entertained with a luncheon on April 11 at the Ideal Hotel in Huntingburg. Mrs. Wishard read a paper giving detailed instructions of the plans and purposes of an auxiliary. Mrs. W. E. Tinney spoke on public relations. Mrs. H. C. Knapp, president of this auxiliary, announced the gift of fifty volumes in honor of her daughter, Alice, to the Boehne Hospital in Evansville.

Vanderburgh County entertained with a one o'clock luncheon at the Hotel McCurdy in Evansville on April 12th. Dr. Minor Miller read a paper on syphilis, and Mr. Albert Stump of Indianapolis gave an address which was followed with talks on auxiliary work by Mrs. Wishard and Mrs. Tinney. The reports and election of officers followed. This auxiliary has the distinction of having two past state presidents, Mrs. Davidson and Mrs. Ravdin.

The three remaining auxiliaries to be visited soon are Vigo at Terre Haute, Orange at French Lick, and St. Joseph at South Bend.

Indiana University News Notes

Specialists of 13 states studied diseases of the ear, nose and throat at a postgraduate course of two weeks (April 10—April 23) at the Indiana University School of Medicine.

The two-weeks' course, which was limited to 40 physicians, drew nation-wide attention because it offered the opportunity to study latest methods of treating sinus, mastoid and other serious diseases which were described to the doctors.

Dr. C. H. McCaskey, chairman of the otolaryngology department of the I.U. Medical School, was in charge. The course began Sunday, April 10, with a dinner at the Indianapolis Athletic Club held by a number of organizations of specialists in diseases of the eye, ear, nose and throat. Guest speakers

were Dr. Dorothy Wolff of the Washington University School of Medicine, who spoke on "The Anatomic and Pathologic Features of the Middle and Inner Ear of Importance to the Clinician." Indiana speakers were Dr. C. P. Clark, Dean W. D. Gatch, Dr. B. D. Byers, Dr. E. E. Holland, Dr. Robert M. Moore and Dr. John F. Barnhill.

Three hours each morning were devoted to case presentation and surgical procedures, and daily luncheons and dinners at the James Whitcomb Riley Hospital for Children were followed by round-table discussions.

Included in the program were pictures and demonstrations in the pathology of the head and neck, bacteriology, immunology, plastic surgery of the head and neck, neoplasms of the head and neck, diseases of the middle ear, disorders of the cochlea and vestibular apparatus, acute and chronic mastoiditis, diagnosis and surgery in sinusitis, non-surgical treatment of the nasal sinuses, diseases of the tonsils and adenoids and bronchoscopy and esophagoscopy.

Co-related subjects presented included biological chemistry, the relation of ophthalmology or eye diseases to otolaryngology, neurology, the x-ray in diagnosis and radium therapy, and principles of surgery in otolaryngology.

Exhibition of a newly designed simplified machine which greatly improved the circulation of blood in diseased legs where gangrene is impending was a feature of a series of exhibits shown to the Indiana University Medical School Research Committee during its quarterly meeting at the I.U. Medical Center in Indianapolis.

The committee also announced a series of grants from funds under its control, including an order for the purchase of an additional supply of radium, costing \$1,000, to improve the service of the cancer clinic of the medical center; the creation of four fellowships for graduate students in the I.U. Medical Center; grants of money for broadening the service of the cancer clinic; appropriation of \$1,000 for the establishment of a medical center technical bulletin to have national circulation and the founding of a new clinic on circulatory diseases.

Members of the committee viewing the exhibits prepared by research division of the Medical Center and participating in the grants from research funds under their direction were, Dean W. D. Gatch, Hugh McK. Landon, chairman of the research committee; P. C. Reilly, Eli Lilly, Dr. B. D. Myers, Dr. W. J. Moenkhaus, James W. Carr, executive secretary of the Riley Hospital Joint Executive Committee, and J. B. H. Martin, administrator of the Indiana University Medical Center.

Members of the university medical staff made it clear that while much was expected from the new machine to improve blood circulation, an insufficient number of cases had been treated to enable the staff to draw definite conclusions. Because of

the great number of sufferers from diseases of the type which the machine is designed to help, medical staff members said, the device will have a very wide application and because of its economical construction and apparent efficiency will do much to relieve widespread suffering.

The committee approved grants of \$1,000 each for the establishment of resident fellowships in the medical center in x-ray, with especial reference to the cancer clinic, in internal medicine, in general surgery and in ear, nose and throat diseases.

The committee announced that the new fellows are to assist in clinical teaching and clinical research, preparing papers in the course of one year's work which will describe their researches. The creation of the fellowships, committee announcement said, will meet a most urgent need in medical education for it provides opportunities for young men who desire further training to prepare for specialization. They will also improve the teaching of undergraduate students.

The establishment of the new clinic in circulatory diseases was made possible by improved facilities in the new clinical building of the medical center. The need for such a clinic has been recognized for some time and it is said that a vast number of patients suffer from the disturbances which can be treated in this clinic.

There was broad discussion by committee members of ways and means of greatly widening the service of the cancer clinic. Lack of adequate funds, committee members said, impedes development of the clinic to the point of anywhere near meeting the demand for its service. Housing of patients is one important problem. Far too few beds are available for this important service, the committee said. It was announced to the committee that two new fellowships would be established by the university in the medical center, one in orthopedics and one in anesthesia. All the new fellowships will be awarded on a competitive basis.

The committee was advised that under its direction and supervision, faculty members of the Medical Center had published more than 40 papers during the last year, all of them in connection with researches financed by the committee.

Miss Lena Cooper, of New York, president of the American Association of Dietitians, and Robert E. Neff, of the University of Iowa, president of the American Hospitals' Association, were recent guests of the Indiana University Dietary Department. A luncheon was given in their honor, with Miss Lute M. Troutt, director of dietary Department, presiding. Mr. Neff formerly was administrator of the I. U. Medical Center.

Internship appointments in hospitals in 15 states of the United States and Canada have been accepted by 83 seniors of the Indiana University school of medicine, according to the announcement of Dean W. D. Gatch of the I.U. School of

Medicine. The appointments will be effective July 1.

A total of 56 of the medical students who will receive their M.D. degrees from Indiana University in June will be located in Indiana hospitals. The Indiana University hospitals, including the James Whitcomb Riley Hospital for Children, the William H. Coleman Hospital for Women, and the Robert Long General Hospital, will have the largest number of young I.U. doctors, as 21 of the seniors have received appointments in these three hospitals. Sixteen will be at the Indianapolis City Hospital, 10 at St. Vincent's Hospital, Indianapolis, 4 at the Methodist Hospital, Indianapolis; two at St. Elizabeth's Hospital, Lafayette; two at Epworth Hospital, South Bend, and one at Ball Memorial Hospital, Muncie.

Other states in which I.U. School of Medicine internes will be located are as follows: Ohio, Connecticut, Pennsylvania, New York, Washington, Michigan, Missouri, Maryland, Wisconsin, Washington, D.C., Saskatoon Sas., Canada, California, Illinois, New York.

Those granted appointments as internes in the Indiana University hospitals are:

Henry Amstutz, Indianapolis; Joseph Aronoff, Youngstown, Ohio; George Balsbaugh, North Manchester; Leonard Blickenstaff, Lafontaine; George Byfield, Indianapolis; Jack Eisaman, Churubusco; Robert Ferguson, Indianapolis; Thomas Gill, Jr., Michigan City; Byron Kilgore, Indianapolis; John Kimmick, Indianapolis; Charles McCormick, Indianapolis; Sam Manalan, Gary; William Montgomery, Plymouth; Richard Nay, Muncie; Jed W. Pearson, Jr., Indianapolis; Gustavus Peters, Frankfort; James Scales, Lynnville; Richard Schug, Decatur; Ben Siebenthal, Bloomington; Stewart Smith, Indianapolis; Robert Speas, Whiteland.

The following I.U. medical school seniors have received internship appointments at the Indianapolis City Hospital:

Clarence Bunge, Indianapolis; Leon Chandler, Rose-dale; Jack Dorman, Indianapolis; James Gosman, Jasper; Robert Johnson, Bloomington; Nelson Kauffman, Indianapolis; Edward Lidikay, Ladoga; Karl Mast, Angola; Roger Reed, Anderson; William Rossman, Greenfield; Francis Sheehan, Indianapolis; Tom Shields, Brownstown; Richard Stauffer, Fort Wayne; Victor Teikler, Indiana Harbor; Morris Thomas, Muncie; John D. Winebrenner, Muncie.

The St. Vincent's hospital will have the following I.U. internes:

Edgar Bridwell, Indianapolis; Paul Connell, Indianapolis; Morris Davidson, Elkhart; Richard Emme, Harlan; William Garner, Indianapolis; John Glackman, Rockport; William Lybrook, Galveston; Joseph Quigley, Indianapolis; Benjamin Speheger, Bluffton; Norman Richard, Fort Wayne.

The following will serve their internships at the Methodist hospital:

George Davis, Rushville; Joseph Riley, Chrisney; Ross Rissler, Indianapolis; Howard Romack, Greenfield.

Richard Austin, Indianapolis, and Roscoe Yeagerlehner, Clay City, will be at St. Elizabeth's hospital, Lafayette; William J. Miller, Valparaiso, and Milton Ort, South Bend, at Epworth hospital, South Bend, and Boyd L. Mahuron at Ball Memorial hospital, Muncie.

Other internship appointments are as follows:

Arthur Adams, West Lafayette, Bridgeport City hospital, Bridgeport, Conn.; David Adler, Brooklyn, N. Y., St. Elizabeth's hospital, Dayton, Ohio; Thomas Bauer, Lafayette, Philadelphia General hospital; James Dietrich, Bloomington, Akron City hospital, Akron, Ohio; James Feffer, Brooklyn, N. Y., King's County hospital, Brooklyn, N. Y.; Burnett Forman, Indianapolis, Tacoma General hospital; Donald Ladig, Fort Wayne, Providence hospital, Detroit, Mich.; Keith Hammond, French Lick, U. S. Public Health Service; Alex Govorechin, Hammond, City hospital, St. Louis, Mo.; Keith Hammond, French Lick, U. S. Public Health Service; John G. Hancock, Indianapolis, Lucas County hospital, Toledo, Ohio; Thurston Harrison, Indianapolis, Johns Hopkins hospital, Baltimore, Maryland; Bruce Kendall, Indianapolis, U. S. Naval Service; Karl Helm, Washington, Milwaukee General hospital; Donald Ladig, Fort Wayne, Providence hospital, Detroit, Mich.; Arnold Maloney, Salem, Freedman's hospital, Washington, D. C.; Woodrow Murphy, Indianapolis, Saskatoon, Sas., Canada; Rudolf Myers, Bloomington, Los Angeles County General hospital; Kenneth Neuman, Lafayette, St. Francis hospital, Evans-ton, Ill.; Wanda Olezak, South Bend, Mercy hospital, Oshkosh, Wis.; Samuel Oliver, Indianapolis, U. S. Naval Service; William Schnute, Evansville, University Hospitals of Michigan; Lawton Shank, Angola, San Diego County hospital, San Diego, California; Birna Smith, Milroy, Good Samaritan hospital, Dayton, Ohio; Crystal Slick, Hollansburg City hospital, Springfield, O.; Edward Smith, Petersburg, Cleveland City hospital, Cleveland, O., and David Wiener, Newark, N. J., Newark Memorial hospital.

Societies — Institutions

THE EXECUTIVE COMMITTEE INDIANA STATE MEDICAL ASSOCIATION

April 3, 1938.

Meeting called to order at 10:15 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

The monthly statements of Receipts and Expenditures for February and March for the Association committees and THE JOURNAL were approved.

Membership Report

Number of members on March 31, 1938.....	2781
Number of members on March 31, 1937.....	2726
Gain over last year	55
Number of members Dec. 31, 1937.....	2980

Treasurer's Office

Financial statement in regard to the Beachton Court bonds held by the Association brought to the attention of the Committee. These bonds are being liquidated by an administrator and payments are being received by the State Association from time to time.

1938 Annual Session at Indianapolis

The attorney for the Association reported that he had reviewed the contract to be signed with the Murat Temple and this is now ready to be signed.

Commercial exhibit. 35 spaces sold; 7 to be sold.

Scientific exhibit. Dr. Culbertson is to be consulted in regard to the placement of this exhibit.

Postgraduate

Dates for postgraduate meeting definitely set for May 23 to May 27.

District Meetings

Date	District	Place
April 8—Fri.	10	Valparaiso
May 5—Thurs.	6	Richmond
May 6—Fri.	5	Terre Haute
May 10—Tues.	8	Muncie
May 17—Tues.	9	Noblesville
May 12—Thurs.	2	McCormick's Cr. St. Pk.
May 18—Wed.	11	Logansport
May 19—Thurs.	12	Lake James
June 9—Thurs.	1	Evansville

Third, Fourth and Seventh District dates not yet set. 13th District will meet at Plymouth, November 2, 1938.

Dr. Baker is contemplating reforming the Graduate Education Committee so that the work now done by the special committee on graduate education will be done by the standing Committee on Medical Education and Hospitals. This committee is to be enlarged from three to five members and the terms of these members are to be staggered so experienced men always will be available. Dr. Baker read a letter from Hamilton Anderson who has been carrying on a survey of postgraduate work in the various state societies for the American Medical Association.

Program for out-of-Indianapolis postgraduate study presented in a letter from Dr. Mettel. The Bureau of Maternal and Child Health will cooperate with the State Association in every way possible in arranging postgraduate work in the outlying districts.

"Dr. Quiz" column to start in the May number of THE JOURNAL following the recent recommendation of the Graduate Education Committee.

Material in regard to medical postgraduate extension courses as carried on in Massachusetts brought to the attention of the Committee. This was to be forwarded to Dr. L. A. Enslinger, chairman of the Committee on Graduate Education.

Legislative, Legal, and Social Security Matters

National:

H. R. 9687 introduced by A. J. May of Kentucky to establish a United States postgraduate medical and surgical college and research institute, brought to the attention of the Committee. A letter from Dr. Woodward indicated that no immediate action would be taken upon this bill and that the American Medical Association would keep the State Association informed concerning this measure.

Local:

Report made that conversation with Dr. Oliver Greer, director of Services to Crippled Children, developed that he is contemplating the introduction of legislation which in the main would supply funds which would be used to repay physicians to some extent for their work upon crippled children. All plans which Dr. Greer has in mind will be presented first to the technical committee which is composed of physicians, several of whom are past presidents of the State Association. Dr. Greer will keep the Executive Committee informed concerning his plans and he stated that he would be very pleased to attend the next meeting of the Committee.

State industrial insurance. Resolutions and letters against the state taking over compensation insurance from the Dubois County Medical Society and various individual physicians were received by the Committee.

A report on the Ohio situation where state insurance is in effect is in the hands of each member of the Executive Committee.

Sickness Insurance and Socialized Medicine

Various newspaper comments in regard to the HOLC set-up, criticising the District of Columbia Medical So-

cietiy for its opposition to the group health service, brought to the attention of the Committee.

Dr. Norman Beatty was authorized by the Committee to take part in the discussion upon "The Doctor's Dilemma" at the professional men's forum in Indianapolis on April 27.

Clippings from St. Louis newspapers criticising the St. Louis Medical Society for the stand taken against a group hospitalization and medical insurance proposition established in that city brought to the attention of the Committee.

Farm Security Administration

M. E. Hays, Regional Cooperative Specialist of the Farm Security Administration, conferred with the Committee in regard to the activities of the Farm Security Administration in Indiana. Mr. Hays reported that Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, had had a conference with Dr. R. C. Williams, medical director of the Farm Security Administration, and that results of the conference probably would be in our hands within a short time. In Indiana nothing has been done in establishing plans in the various county societies to take care of Farm Security Administration clients, the matter having reached only the discussion stage. Mr. Hays reported that in Iowa and Missouri definite progress had been made and the plans were in effect in many of the counties in those states. The secretary was instructed to write Dr. Leland and the secretaries of the Iowa and Missouri State Medical Societies asking for information in regard to the Farm Security Administration program in those states.

State Board of Medical Registration and Examination

Cult Survey. Progress in regard to the survey concerning irregular practitioners was discussed by Dr. Beatty, chairman of the legislative committee.

The Committee noted that a new member is to be appointed to the State Board of Medical Registration and Examination to succeed the late Dr. L. C. Sammons of Shelbyville, the homeopathic member of the Board.

Organization Matters

The St. Joseph County Medical Society passed a resolution to appoint a full-time executive secretary, and the Lake County Medical Society is considering the employment of a full-time secretary.

Medical Economics

No answer received to letter sent by the secretary of the State Association upon the authority of the Executive Committee to the patient who complained about the medical profession in an Indiana community. Hence it was thought that this matter could be dropped.

Venerable Disease Control Program

Suggested syphilis survey in Indiana. Letter received from Dr. F. R. Nicholas Carter, chairman of the Committee on Syphilis Control, stating that when Dr. Parman was in Indianapolis several months ago he suggested that a survey be made of the State of Indiana to determine how many cases of syphilis are under treatment at the present time and how many are originating each year. Dr. Carter states, "To do this will require that our committee send a letter to each physician in the state. It will require postage. Such a survey has not been approved by the Executive Committee of the Association. However, if it is approved we shall need the necessary amount of stationery and postage. If you see fit to place these items in the budget I believe it is a worthy consideration and one which our committee is very anxious to see get under way." The Executive Committee suggested that the secretary speak to Dr. Verne Harvey in regard to this survey and see if this cannot be paid out of State Board of Health funds.

Dr. Baker reported that he had been requested to appear before the House Committee at Washington

during the hearing on syphilis control legislation. Some weeks ago he appeared before the Senate Committee. The Executive Committee was of the opinion that Dr. Baker should maintain his contact in Washington. Dr. Baker said that he would not expect the State Association to bear the expense of this trip to Washington.

Terre Haute situation. The secretary made a report upon the conference held at Terre Haute which came about as a result of a complaint that the state laboratories were making blood tests for those who are able to pay. The conference straightened up the misunderstanding and Dr. Harvey, director of the State Board of Health, has written to Dr. Maurice B. VanCleave, secretary of the City Board of Health of Terre Haute, that "The State Board of Health has therefore taken the position that the laboratory would perform only those tests sent to it where the physician signs the card accompanying the specimen that the patient is financially unable to pay for such laboratory tests. The State Board of Health is of the opinion that, regardless of whether or not the person is a food handler, if he is financially able to pay for such laboratory tests, it should be sent to a private laboratory. We believe this is reasonable in view of the fact that the laboratories reduced their price to \$1.00 per test."

Indigent Sick

Report of expenditures for medical care of relief cases prepared by the Governor's Commission on Unemployment Relief brought to the attention of the Committee. The report states that medical care accounted for almost one-fourth of the total money spent for relief in 1937. This of course includes hospitalization, drugs, nursing services, etc. (For results of conference with R. W. Bunch, acting administrator of the Governor's Commission on Unemployment Relief, see below.)

Medical Care for All the People

Forms distributed to all county medical societies.

Various county societies are attacking this problem from various angles.

a. The Vigo County Medical Society will use the Economics Department of the Terre Haute Normal School to compile the data, and the society has authorized the necessary expenditure to carry out the survey.

b. The Vanderburgh County Medical Society has taken up a special assessment of \$10.00 from each physician to carry out the survey.

c. The Indianapolis Medical Society is to determine ways and means for carrying out this survey at the meeting of the council of the Society to be held in the near future.

d. Report made that many county societies are absolutely indifferent to undertaking this job, that many of the societies are at a loss as to how to proceed, and that there is a great deal of misunderstanding concerning the survey. In one extreme instance a county society misunderstood the purpose of the survey and the members had it in their minds that the State Association and the American Medical Association "had sold out to the administration at Washington in order to further socialized medicine." The Committee felt that such misunderstanding was most unfortunate and that no effort should be spared either in THE JOURNAL or through talks by the officers of the Association to disseminate to physicians in all parts of the state correct information in regard to the needs and purposes of the survey.

The A. M. A. has not yet sent forms to be used by the State Association in compiling results.

Plan to be used by State Association in compiling this information. The Committee discussed this matter at some length and, after ascertaining the exact needs of the situation, the executive secretary is to report suggestions at the next meeting of the Committee.

The State Department of Public Welfare has offered its assistance in turning over to the State Association

the statistics and figures compiled in regard to medical costs and medical services to indigents.

The president and secretary of the State Association conferred with R. W. Bunch, acting administrator of the Governor's Commission on Unemployment Relief, and Mr. Bunch said that no legislation was contemplated at the next session.

Question has arisen as to what provision should be made for obtaining information from dentists. The Executive Committee was of the opinion that copies of the forms should be sent to the secretary of the Indiana State Dental Association and that the dentists should be asked to cooperate in the survey.

State Board of Health

No further proposal has been made in regard to the public health survey in Indiana to be carried on by the United States Public Health Service and the Rockefeller Foundation under the sponsorship of the American Public Health Association.

American Medical Association Meeting at San Francisco

Recommendation of the Bureau of Publicity in regard to the display at the American Medical Association meeting upon the preventive medicine program in Indiana brought to the attention of the Executive Committee. The Committee approved the recommendation of the Bureau of Publicity that such a display should be prepared for the annual session of the American Medical Association and also that the suggestion should be made to the delegates from the Indiana State Medical Association to the American Medical Association that resolutions in regard to the Indiana preventive medicine program should be presented to the House of Delegates at the San Francisco meeting.

Invitations received from the Pennsylvania Medical Society and the Ohio State Medical Association to hold the 1939 convention in Philadelphia and Cleveland.

Cancer Program

The Executive Committee approved the request of the Committee on Control of Cancer to place a girl at the headquarters office during the month of April to work on the campaign. This girl will be paid by the Women's Field Army of the Indiana Federation of Women's Clubs.

"The Birth of a Baby"

Report made to the Committee that this film, which has been approved by the Indiana State Medical Association and a special committee of obstetricians of the Indianapolis Medical Society, will be shown in Indianapolis sometime in November.

Payment of Physicians for Rabies Treatment

The question has arisen as to whether or not the county or township is responsible for payment of physicians' services in giving rabies treatment. It was the opinion of the attorney that authorization for this treatment should be received from the township trustee prior to giving the treatment.

Group Hospitalization

Articles from McCall's magazine and report on group hospital services of St. Louis brought to the attention of the Committee.

Malpractice

No malpractice suits were filed before the Committee for consideration.

BUREAU OF PUBLICITY

February 10, 1938

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Report made that the following releases had been sent out:

January 8—"Blood Transfusions."
February 2—"Stamp Out Syphilis."
February 11—Secretaries' Conference.

Requests for speakers:

Feb. 16—Parke-Vermillion County Medical Society, Cayuga. Speaker requested to talk on "Sterilization for the Indigent and Illiterate."
March 8—Tippecanoe County Medical Society, Lafayette, Discussion of Summer Round-Up. Director of the Bureau of Maternal and Child Health of the State Board of Health and executive secretary of the State Association invited.

Reports on meetings:

Dec. 16—Indiana Township Trustees Association. "Local Problems of Medical Care." (800 present.)
Jan. 9—University Park Christian Church, Indianapolis. "Medical Ethics." (75 present.)
Jan. 12—Decatur County Medical Society, Greensburg. "Legislative Outlook and Planning an Organization." (35-40 present.)
Jan. 19—Parke-Vermillion County Medical Society, Clinton. "Scarlet Fever." (30 present.)
Feb. 1—Clay County Medical Society, Brazil. "President's Program of Preventive Medicine" and "Medical Economics." (15 present.)
Feb. 8—DeKalb County Medical Society and DeKalb County Lions Club, Garrett. "Socialized Medicine." (120 present.)

Request made by representatives of the Woman's Auxiliary to meet with the Bureau. The Bureau instructed the secretary to write to the president of the Woman's Auxiliary, asking her to submit in writing her proposed program in order that this might be taken up and discussed by the Bureau so the members may have the subject matter well in mind before any meeting is called with the Auxiliary members.

Letter received from a physician in Chicago who was formerly a member of the Indiana State Medical Association concerning colored moving pictures upon diseases of the ear, nose and throat, which he desires to show before county medical society meetings. The Bureau suggested that copies of this letter be sent to the Indiana Academy of Ophthalmology and Otolaryngology and also to the officers of the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association.

The Bureau discussed in detail the president's program on preventive medicine and the Bureau of Publicity heartily approved the program as outlined by one of its members.

The December Better Business Bureau Bulletin containing an article entitled "Modern Witchcraft" which tells of investigations made of cultists practicing in Indianapolis was brought to the attention of the Bureau. The Bureau expressed its appreciation of the fine work that the Better Business Bureau is doing in investigating and reporting upon these pseudo-scientific practices which are defrauding the public.

Letter received from the editor of *Science Service* enclosing a clip sheet which was sent to newspapers throughout the country. This clip sheet included a copy of the article recently released by the Bureau concerning blood transfusions under the heading, "Too Much Fuss Over Blood Transfusions."

Letter in regard to diphtheria from the Metropolitan Life Insurance Company brought to the attention of the Bureau.

Report in regard to the Conference on Better Care for Mothers and Babies recently held at the U. S. Children's Bureau at Washington brought to the attention of the Bureau.

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PHOSPHORUS	0.16 "	0.17 "	0.33 "
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LOCAL SOCIETY REPORTS

ADAMS COUNTY MEDICAL SOCIETY members held a meeting April eighth at Decatur. Dr. B. S. Cornell, of Fort Wayne, talked on the anomin treatment of cancer.

* * *

BARTHOLOMEW COUNTY MEDICAL SOCIETY members met at Columbus, March twenty-ninth, when a resolution was endorsed recommending an increase in available quarters for the incurably insane within the county. Dr. John W. Ferree of the State Board of Health was the principal speaker at the evening meeting. His subject was "Extension of Public Health Services in the State."

* * *

BOONE COUNTY MEDICAL SOCIETY held a meeting at Lebanon, March fifteenth. Dr. Ada E. Schweitzer talked on "Pediatrics."

* * *

CARROLL COUNTY MEDICAL SOCIETY members held a meeting at Camden, March tenth. Dr. Thomas B. Noble, Jr., of Indianapolis, talked on "Pitfalls in Differential Diagnosis of Acute Abdominal Conditions."

At the April fourteenth meeting of this society, Dr. B. E. Ellis, of Indianapolis, presented a paper on "The Management of Laryngeal Obstruction." This meeting was held in Delphi.

* * *

CASS AND TIPPECANOE COUNTY MEDICAL SOCIETIES held a joint meeting, April first, at the state hospital in Logansport. Hospital staff members gave a clinic and discussed common mental disorders. Dinner was served at the hospital and was followed by a clinical pathological conference directed by Dr. Earl Jewell. A paper on "General Paresis" was presented by Dr. Paul Williams, and a discussion of "Problems of Insane Commitment" was presented by Dr. C. L. Williams.

* * *

DAVISS-MARTIN COUNTY MEDICAL SOCIETY held a meeting at the county hospital in Washington, Indiana, March twenty-ninth. Principal speaker was Dr. Matthew Winters, of Indianapolis, whose subject was "Infant Feeding." Attendance numbered eighteen.

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY members met in Aurora, March twenty-fourth. The meeting time was devoted to a discussion of the study and provision of medical care.

* * *

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY held a dinner meeting at the Ball Memorial Hospital in Muncie, March fifteenth, with thirty-four in attendance. The entire meeting time was devoted to business.

At the April nineteenth meeting of the Delaware-Blackford society, held at the Hotel Roberts in Muncie, Dr. Harold M. Trusler, of Indianapolis, spoke on "Treatment of Extensive Burns." Dr. Trusler's paper was illustrated with lantern slides.

* * *

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY held a dinner meeting at the McFarlan Hotel in Connersville, April twelfth. Dr. Lacey L. Shuler, of Indianapolis, was the principal speaker.

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met in the Chamber of Commerce Building, April fifth, with forty-nine members in attendance. Dr. Wayne R. Glock presented a paper on "Backache." The society amended its by-laws so as to provide for meetings the first, third, and fourth Tuesdays of each month excepting June, July, and August.

* * *

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY held a meeting at Kingman, April seventh. Dr. James H. Sty-

(Continued on page xxviii)

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(Continued from page xxvi)

gall, of Indianapolis, talked on "Modern Methods of Handling Tuberculosis." Dr. W. V. Pace also gave a talk illustrated with x-ray pictures. Attendance numbered thirty-two.

* * *

GIBSON COUNTY MEDICAL SOCIETY members met at the Emerson Hotel in Princeton, March fourteenth, for a dinner meeting. Guest speaker was Dr. Bennett Kraft, of Indianapolis, who talked about allergic conditions. Attendance numbered twenty-one.

At the April eleventh meeting, Dr. L. A. Gray of the University of Louisville talked on "Leukorrhea and Office Gynecology." Attendance numbered twenty-eight.

* * *

GRANT COUNTY MEDICAL SOCIETY held its regular monthly meeting at Miller's Homestead in Marion, March twenty-fourth, to hear Dr. W. D. McNally, of Chicago, talk on "The Diagnosis of Poisons." Attendance numbered thirty-five.

* * *

HENRY COUNTY MEDICAL SOCIETY members met at Newcastle, March seventeenth, to hear Dr. George Garceau, of Indianapolis, talk about fractures. Attendance numbered twenty-five.

* * *

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY met at the Indianapolis Athletic Club, March twentieth, for a dinner meeting. Guest speaker was Dr. Fred L. Adair, professor of obstetrics and gynecology of the University of Chicago, whose subject was "Maternal, Fetal and Neonatal Morbidity."

At the April fifth meeting of the Indianapolis Medical Society, held at the Methodist Hospital, case reports were presented by Drs. W. D. Gatch and John E. Owen on, "Lymphosarcoma;" by H. M. Banks on "Fatal Bilateral Lobar Pneumonia" (illustrating the problem of typing), a general discussion of the study of chronic appendicitis, and a paper by Drs. H. C. Ochsner and G. W. Gustafson on "Thoms' Method of Pelvimetry." This was a joint meeting with the Methodist Hospital staff society.

The Indianapolis Medical Society and the Indianapolis Dental Society held a joint meeting at the Indianapolis Athletic Club, April nineteenth, and heard Dr. R. W. Bunting of the University of Michigan School of Dentistry speak on "The Control of Dental Caries."

* * *

JASPER-NEWTON COUNTY MEDICAL SOCIETY met at the home of Dr. A. R. Kresler in Rensselaer, March thirty-first, for a dinner meeting. The guest speaker was Dr. Charles P. Emerson, of Indianapolis, who talked on "The Orient and the Lessons to be Learned From This of Assistance to Us in Indiana." Fourteen members and two guests were present.

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JAY COUNTY MEDICAL SOCIETY met at the Portland Country Club, April first, for a dinner meeting. Dr. P. E. McCown, of Indianapolis, talked on "Inflammatory New Formations of the Female Urethra and Bladder Neck."

JOHNSON COUNTY MEDICAL SOCIETY held a meeting March sixteenth at Franklin. Dr. C. J. Clark, of Indianapolis, was the guest speaker, his subject being "Heart Disease."

KOSCIUSKO COUNTY MEDICAL SOCIETY met at Warsaw, February sixteenth. Dr. F. E. Schmidt, of Chicago, presented a moving picture on "Management of Pneumonia." Twenty-nine physicians attended.

At the March eighth meeting, Dr. Samuel R. Mercer, of Fort Wayne, talked on "Common Dermatological Conditions Encountered in General Practice."

KOSCIUSKO COUNTY MEDICAL SOCIETY held a meeting at Warsaw, April twelfth, with eleven in attendance. This was a business meeting.

KNOX COUNTY MEDICAL SOCIETY members met at the Jewel Cafe in Vincennes, April twelfth. Dr. R. L. Kleindorfer, of Evansville, presented a paper on "First-Aid Treatment of Injuries and Burns." Eighteen members attended. Applications of two new members were read and approved.

LAPORTE COUNTY MEDICAL SOCIETY members met in the American Restaurant in Laporte for a dinner meeting, March seventeenth. Dr. L. F. Fisher of South Bend talked on "X-ray Therapy in Medicine and Surgery."

LAWRENCE COUNTY MEDICAL SOCIETY members heard Dr. Russell Henry, of Indianapolis, talk on tuberculosis at the April sixth meeting of the society in Bedford.

MADISON COUNTY MEDICAL SOCIETY members heard Dr. Max Cutler, of Chicago, April eighteenth, when he talked before a joint meeting of the staff of St. Johns Hospital and the Madison County Medical Society in the afternoon, and before a public meeting in the evening. Dr. Cutler's subject was "Cancer" and the program was arranged to cooperate with the state program.


MIAMI COUNTY MEDICAL SOCIETY met March twenty-fifth at the Miami County Hospital in Peru. A paper on recent advances in therapeutics was presented by Dr. F. D. Malott, of Converse. Attendance numbered twelve.

MONTGOMERY COUNTY MEDICAL SOCIETY met at Culver hospital in Crawfordsville, February seventeenth, for a dinner meeting. Dr. Paul Merrell, of Indianapolis, was the guest speaker, his subject being "Diagnosis and Treatment of Peripheral Vascular Diseases." Attendance numbered nineteen.



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THE CRIPPLED CHILD

A. F. KNOEFEL, M.D.

Terre Haute

In the past, and not so far remote at that, the cripple's affliction was looked upon as "a visitation" and in some localities such a view still obtains. He becomes the ward of a deity, either evil or beneficial. In the days of the roving tribes, his physical handicap prevented him from keeping up or being as competent in the struggle for existence, with the result that he often perished from exposure and neglect. Among the Spartans, the cripple was doomed from the moment of its birth, and the laws of the ancient Romans allowed the father to dispose of a crippled baby. It was not until the time of Pope Gregory that the public accepted the charge for the care of the cripple.

During the Renaissance, even so great a religious reformer as Martin Luther suggested that the rachitic baby be tossed into the river. A feeling of repugnance prevailed against all cripples, and the most powerful individual factor in combating this attitude by the substitution of pity and paternal care, was the spread of Christianity with its tenet of "brother's keeper." A poor relief act was passed about 1600 A.D., during the reign of England's Queen Elizabeth, which contained specific provisions for the crippled. Interesting evidence of the tolerance shown the cripple is the fact that many of the court jesters were cripples.

Perhaps the first definite organized effort toward the specialization of treatment of crippled children was that of John Nepinak who opened a home school in Munich embracing not only their care but also their education. In 1863 the first hospital in the United States for the care of the ruptured and crippled was opened in New York City, and in 1866 in the same city there was established the New York Orthopedic Hospital and Dispensary. Philadelphia followed with a similar institution in 1884. To Boston, perhaps, goes the credit for establishing, in 1893, the first school of vocational training for cripples to make them self-sustaining. In 1897 the Legislature of Maine enacted a law providing for both treatment and education of the crippled child. In more recent years many of the social and

fraternal orders in the United States have made one of their objectives a well organized plan for the scientific treatment and education of the cripple. Among these are the Elks, Kiwanis and Rotary clubs, and the Shriners, the last being the most active. The Shriners began their work in 1922 when they opened a hospital at Shreveport, Louisiana, devoted to the care and rehabilitation of the crippled child; since that time they have established eleven hospitals and four mobile units that in sixteen years have discharged approximately 60,000 patients, with a present waiting list of nearly 2,000. The two largest hospitals, at St. Louis and Philadelphia, have a capacity of 120 beds each, and the smallest at Honolulu accommodates twenty-six patients. The most publicized institution in the United States is the Warm Springs Foundation in Georgia. In the last five years every hamlet and city have annually held a "President's Ball," the proceeds being divided between that institution and the local institutions. This movement has done much to interest the public in and obtain financial support for the cause of the crippled child. At Hot Springs, New Mexico, there is a hospital patterned after the Warm Springs Foundation.

Indiana is properly proud of its James Whitcomb Riley Hospital for Children. The Indiana General Assembly in 1921 contributed \$125,000 which was matched by private subscriptions. The appeal of this institution has found ready response from the school child to the philanthropist. Any child under 16 years of age and with a presumable disease or defect, having a legal residence in this State, can be admitted by commission of a judge of an existing court of jurisdiction in this State, and the cost of such care and treatment is paid by the county in which the child has legal settlement. It was opened November 19, 1924. During the fiscal year 3,999 patients were admitted to the hospital; there were 17,989 out-patients, and of this number 2,283 were new patients.

In Indiana under the Welfare Act of 1936, as amended by the Acts of 1937, the program of serv-

ices for crippled children is administered by the State Department of Public Welfare, under whose supervision are the ninety-two county departments of public welfare.

Two hospital centers have been approved for this service, namely, Riley Hospital and the St. Joseph's Hospital and Epworth Hospital, together with the Children's Dispensary in South Bend. When children are placed in these hospitals through the State Department of Public Welfare, the counties are eligible for a percentage of reimbursement of the total cost incurred in caring for such "placed" crippled children.

Committed children are not under the supervision of the State Department of Public Welfare; therefore, the costs of care pertaining to these children are paid entirely by the various counties.

In 1929 the Union Hospital of Terre Haute opened an out-patient department for crippled children.

Of all the factors that concentrated and crystallized public opinion in the care of cripples, none were comparable to the World War. Very few families or their acquaintances escaped having a casualty in their midst. It was not until then that the public and even the general surgeon fully realized that the problems of repair and rehabilitation were many and varied, and that those problems meant hospitalization in an institution where specialization obtained, where apparatus, schooling, and special environment were available, so that a rebuilt physical structure, as well as a mind with a new vision, could go out and compete with an individual who had not been handicapped. The lessons learned were applied to the crippled child and the public became cripple conscious, so that a well organized and concerted legislative program moved steadily forward.

The general surgeon and the nurse soon realized that in their respective fields the problems were so varied that orthopedics was a more definite entity than had heretofore been recognized. The problem that most frequently faces a general surgeon permits of a ready solution and can be consummated in a few days, or at least in several weeks, but the situation facing the orthopedist is entirely different, often requiring multiple operations, application of braces with frequent readjustments, and surveillance over a period of months and in some cases years, requiring not only art and skill but untiring perseverance and limitless enthusiasm.

The nursing care is of extreme importance. The duties of the nurse involve not only general nursing care but also, by her proper mental attitude, obtaining the confidence of her patient to the extent that she can unobtrusively implant and build up a spirit of ambition and self-reliance. Such qualifications require innate ability and highly specialized training. If the ultimate result is to obtain in the care of the crippled child, more than orthopedic care is needed. The general question of social factors is involved and this means that the family

as a whole must be considered. Fears, religious convictions, ignorance, and prejudices must be met and properly handled; if this is not done, many valuable hours will have been for naught.

In a number of the larger cities grade schools have been arranged for the crippled child and teachers with special training have been employed. The average teacher is apt to be impressed with what is most obvious, the physical handicap, and unconsciously devotes all her attention to that feature with resulting detriment to the mental attitude of her pupil. Her daily contact with the pupil affords a valuable opportunity to inculcate a spirit of self reliance and to overcome any self consciousness that is usually present.

The Federal Government has recognized the problem of the crippled child. There have been held three White House conferences on child health and protection. In August, 1935, President Roosevelt signed the Social Security Act providing a fund of \$2,850,000 which, in cooperation with the states, can be used in the care of the crippled child. The Federal agency is the Children's Bureau of the Department of Labor; they supply an amount of money equal to that appropriated by a state. By November of 1936 forty-seven states and territories had submitted plans for a definite program of the care of the crippled child.

Naomi Duetsch, R.N., director of public health nursing, Children's Bureau, United States Department of Labor, writes as to the role of the public health nurse: "Assist the interpretation of scientific knowledge to the families of crippled children; in the discovery of potential causes of crippling; in the prevention of serious handicaps through early discovery of remediable conditions, and in rendering skilled care."

The question of assistance should appeal not only to the charitable, but also to the economic. The first is a duty of love, and the charitable can have concrete evidence of the results of their giving; the latter is so obvious that even the hard-headed man of business should see the value of lessening the load by minimizing the number of public dependents. Money is needed for four purposes; first, remedying the impaired physical framework; second, reduction of the component parts of the physical framework; third, application and maintenance of braces; fourth, vocational training. If the above is carried out, the cripple not only has a measure of self respect but also becomes either wholly or to some extent self supporting; and with the rebuilding of the body there comes a recreation of spirit.

The causes of crippling in children can be classified under four headings:

1. Congenital deformities. (Errors of development.)
2. Acquired deformities due to deficiency.
3. Infection of skeletal or neuro-muscular system.
4. Trauma.

1. *Congenital Deformities.* Every infant should have the advantage of a careful examination at the time of its birth for often an early discovery means early treatment, thereby obviating later mutilating operations. Treatment of the club foot begun in the second or third week is usually highly successful, requiring only manual manipulation in the mild cases and a minimum number of plaster splints in more aggravated types. To insure proper muscular balance and no bony deformity, the child should be repeatedly observed by the doctor when he begins to walk.

Congenital dislocation of the hip is frequently overlooked and occasionally not discovered until the child begins to walk. This condition if unrecognized is one of great seriousness and, unless discovered early and corrected, is an unnecessary cause of crippling. Manual reduction can best be done up to five years of age. The common method of restraint after reduction is application of plaster, with the lower extremities in the "frog position." If the child has been walking, it is urged to do so early, as soon as two weeks after the operation, although the plaster will have to be worn for months. In much later childhood and adolescence open reduction is usually found necessary.

2. *Acquired deformities due to deficiency.* Rickets is seen much less now than formerly. Due to the wide-spread information on infant care, the public is now fully acquainted with the value of sunshine, well balanced diet and the role that fruit juices and cod liver oil and allied substances play in the growing child. No doubt the time will soon come when rickets will be seen only in exceptional cases.

Juvenile scoliosis resulting from unbalanced diet and faulty posture should be classified as a preventable condition. Its presence in most cases can be corrected by properly directed exercises and diet. Correct posture should be the heritage of every child and the doctor when called to examine a child for any reason should always include careful observation of the framework so that if posture is faulty it can be corrected before a definite anatomical change occurs.

Metabolic unbalance resulting in over weight should be corrected, thereby preventing faulty posture and flat feet.

The child's foot should be shod with a shoe built along anatomical lines.

3. *Infection of skeletal or neuro-muscular system.* No condition coming under a discussion of the cripple presents more varied types of deformity than poliomyelitis. The final result in this disease may range from complete recovery without residual effect to localized paralysis involving a single muscle, group of muscles, limb or limbs, or death (in some epidemics the mortality rate reached 25%). For the reason that no disease of childhood is so often overlooked in its very early stages as poliomyelitis, it should behoove every doctor when

called to see a child to be ever on the alert, having in mind that this disease does occur sporadically. Treatment of rest should begin as soon as diagnosed. Posture of affected parts should be constantly watched, for posture contraction begins so innocently, but when once established is quite a problem to overcome. Rest also conserves such structures as are not totally involved and prevents fatiguing the unimpaired muscles. Through numerous campaigns and news articles the public has begun to understand the necessity of rest and bracing necessary to control deformity due to an unequal return of muscular power. In those cases where failure of muscle return results in marked impaired function of a limb, it is necessary to resort to stabilization by tendon transplantation or joint stabilization by arthrodesis. Many cases of what otherwise would result in permanent disability are thus prevented. It is in a child with this disease that institutions equipped with gymnastic apparatus, hydrotherapy, and properly trained attendants accomplish the greatest good.

Tuberculosis of bones and joints occurs less frequently since the advent of tested cattle and removal of the baby from a tubercular mother or nurse. The patient with this disease should have the advantages of the combined services of pediatrician and orthopedic surgeon. Time has proved that rest and dietetic regime are the chief agents to assure a recovery. Most cases of Potts disease and tuberculosis of joints respond to the above treatment. In this disease, careless handling of the crippled part may undo in a moment that which it has taken months to achieve. One cannot always prevent crippling but at least in most every case deformity can be controlled.

Weeks and months of disability and deformity may be prevented in osteomyelitis if it is diagnosed early and proper drainage instituted. Too often is it mistaken for rheumatism or tuberculosis and it is in this disease that too much emphasis cannot be laid on the tragedy of treatment delay. X-ray is absolutely valueless in the early diagnosis of this disease, for when changes are noted in the roentgenogram of the bone, the disease already has resolved into the classification of chronic osteomyelitis. Of all methods advanced for treatment of chronic osteomyelitis, the Orr method has best stood the test of time. Constant surveillance is needed in the care of this disease to prevent the occurrence of posture contraction.

4. *Trauma.* Accidents at time of birth occasionally occur, and, although not necessarily chargeable to the obstetrician, their possibility should be kept in mind and means for their prevention carried out. In many of these cases the advice and assistance of the neurological surgeon should be requested.

In the examination of an injured member, one should include not only the skeletal structure but should also assure himself as to the integrity of the circulation, nerves, and tendons. Too often is a severed tendon or a palsy discovered too late. Frac-

tures present a more complicated problem than merely bringing about a proper apposition of the fragments. The proper care of the soft structures and the mobility of the joints adjacent to the fracture are essential to prevent an unduly prolonged disability, not on account of complaint at the site of fracture, but because of stiffness in the joints

and adhesions in tendon sheaths.

Arthritis, although primarily a constitutional disease and within the scope of the internist, should have the benefit of orthopedic management directed towards the prevention of deformity as well as the preservation of function.

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THE PALSIED CHILD—A PREVENTIVE PROGRAM

CHARLES F. THOMPSON, M.D.

Indianapolis

The recognition of a clinical type of cerebral palsy in children which is entirely distinct from those attributable to cerebral agenesis, localized brain injury, microcephalus, or syphilis justifies a search for the cause and its prevention. This type, designated as congenital cerebral diplegia, is characterized by spasticity of all extremities with or without some degree of mental retardation, and constitutes the largest group of cerebral palsies.

Two recent unrelated contributions to our knowledge of cerebral trauma from anoxemia justify the reconsideration of Little's¹ stated belief in asphyxia as a cause of the diffuse lesion in the central nervous system. The one² describes patchy cellular disintegration in the cortex of adults as the principal pathological finding in fatalities from nitrous oxide anesthesia. Death followed convulsions and clinical signs of cerebral dysfunction which persisted for as long as a few days. Gildea and Cobb³ at the Harvard Neuropathological Laboratory subjected young cats to varying degrees of cerebral anemia by ligation of the vertebrals, the left subclavian and innominate arteries, and estimated that cortical cells are not capable of enduring complete anemia for more than ten minutes. These animals developed convulsions and cessation of respiration as the arterial supply to the head was reduced. The pathological changes were "devastation holes" in the cortex, ischemic foci and cellular disintegration, the large and small pyramidal cells showing greatest susceptibility to the anoxemia. Collier,⁴ in reviewing the pathogenesis of cerebral diplegia in 1924, refers to a group of cases in which the initial process is at present "mysterious and elusive." His analogy between the effect of frost on a growing flower garden and the degeneration of cerebral neurons from either pre-natal or post-natal cause is enlightening but not specific. Ford⁵ states that "there is no reason to doubt that asphyxia may produce multiple petechial hemorrhages in the brain

and meninges in infants." He also cites the work of Pike and coworkers in which experimental interruption of cerebral circulation produced necrosis of cortical motor cells and degeneration of the pyramidal tracts within a few weeks. In addition it was shown that the cells of the medullary centers resisted anemia longer than those of the cortex. It must be remembered that prematurity is a considerable factor in causing petechial hemorrhages in the brain and meninges of new-born infants.

Little first cited asphyxia neonatorum as a cause of lesions of the nervous system of diplegic children in the *Lancet* of 1841. He included abnormal parturition, difficult labor, and prematurity as additional causes of diplegia, but favored asphyxia as the essential cause in these. Eastman,⁶ in a recent comprehensive review of asphyxia neonatorum, quoted Yandell Henderson to the effect that "the first quarter-hour is the most dangerous period of life with a mortality rate as great as any subsequent month." Eastman also stated that asphyxia reduces the oxygen saturation of arterial blood at birth from its normal level of 50 per cent to from one-fifth to one-tenth of that level. Schreiber and Gates,⁷ of Detroit, more recently have ascribed "birth injury" to cerebral anoxia or oxygen deprivation in the obstetrical review of some three hundred cases, one-half of which were convulsive, one-fourth spastic and the remaining children showing mental retardation. Heavy analgesia was the rule in this series of obstetrical records and the authors blame scopolamine and barbiturates for the respiratory depression necessitating resuscitation of the infants. The author has observed four diplegic children during the past three years, all of whom were delivered by cesarean section. Only one child in this group was convulsive following birth, but two had records of periods of asphyxia necessitating resuscitation.

The case against asphyxia neonatorum as a cause of cerebral diplegia exists in medical litera-

¹ Little, W. J.: *Lancet*, 1841. *Trans. Obstet. Soc. London*, 1862, **3**, p. 293.

² Courville, Cyril: Asphyxia as a consequence of nitrous oxide anaesthesia. *Medicine*, May, 1936.

³ Gildea, E. F., and Cobb, Stanley: The effects of anemia on the cerebral cortex of the cat. *Arch. Neur. and Psy.*, **23**, pp. 876-903, May, 1930.

⁴ Collier, Jas.: Pathogenesis of Cerebral Diplegia. *Brain*, 1924, **47**, pp. 1-22.

⁵ Ford, Frank R.: Birth Injuries of the Central Nervous System. Williams and Wilkins Co., 1927., p. 15.

⁶ Eastman, Nicholas J.: Asphyxia Neonatorum, *Internat. Clinics Series* 46, Vol. 2., p. 274., June, 1936.

⁷ Schreiber, F., and Gates, N.: Cerebral Injury in the New-born due to Anoxia at Birth., *Jour. Mich. State Med. Soc.*, Feb., 1938, pp. 145-150.

ture for almost a century. It is to be admitted that certain defects persist in the cycle. The large series of autopsies in fetal deaths disclose cerebral hemorrhages—both microscopic and gross—in percentages varying from twenty-eight to sixty-four. The less extensive degrees of cerebral palsy—namely hemiplegia and monoplegia—are obviously caused by local brain trauma or disease. However, asphyxia remains as the preventable factor among the probable causes of the diffuse pathological changes in the brains of cerebral diplegics.

Modern obstetrical teaching emphasizes one principle in the treatment of apnea neonatorum: immediate drainage of mucus and fluid from the respiratory passage, preferably by soft catheter. The measures practiced on the new-born babe and which are rightfully condemned as mechanical factors favoring circulatory changes in the brain are:

1. Feet holding and other postures which might aggravate cerebral hemorrhage.
2. Feet holding, slapping, and swinging.
3. The use of ice water.

It must be repeated that prolonged apnea with cyanosis from respiratory embarrassment signifies anoxia in the new-born. Narcotic drugs and the barbiturates are notorious as depressors of the respiratory center in the new-born and their cumulative effect must be avoided.

A program for the prevention of cerebral palsy in children must be executed by the general practitioner and the obstetrician. It must obviously include prompt and proper measures to overcome asphyxia of the new-born. It must be built upon strict adherence to the rules for proper handling of the infant and the cautious use of drugs which depress the respiratory center.

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TREATMENT OF RAGWEED POLLENOSIS *

COMPARISON OF ORAL AND HYPODERMIC MEDICATION

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Indianapolis

The past season (1937) in Indianapolis was an unusually severe one for ragweed sensitive patients. A high ragweed pollen count was found as early as August 15, and it was not until September 6 that it was lower than the corresponding date in 1936. (Table I, Graph.) Durham¹ has estimated the average seasonal ragweed pollen count in Indianapolis to be about 13,000. From August 1 to October 1, the total count this year was 20,008.² Our enumeration for the same period of time was 15,667. The peak was reached on August 25, with 2,093, the highest count ever recorded in Indianapolis, and again gives this city the doubtful honor of being dubbed the ragweed capital of the world. Because of this high pollen count, it is interesting to record the results obtained during this season in the treatment of patients sensitive to ragweed pollen.

That any statistical report can be anything more than an approximation cannot be denied. The patient whose symptoms are those of sneezing, mild nasal blockage, and lacrimation will be dissatisfied with anything less than one hundred per cent results. The patient who has had to spend three weeks in bed because of severe pollen asthma is enthusiastic if his symptoms are relieved to the point where he is able to carry on his usual occupation, even though he may have daily attacks of hay fever or asthma. The doctor is disappointed in the treatment but not the patient. The results reported

here are a combination, then, of the patient's disappointment or over-enthusiasm and the doctor's dissatisfaction or overestimation.

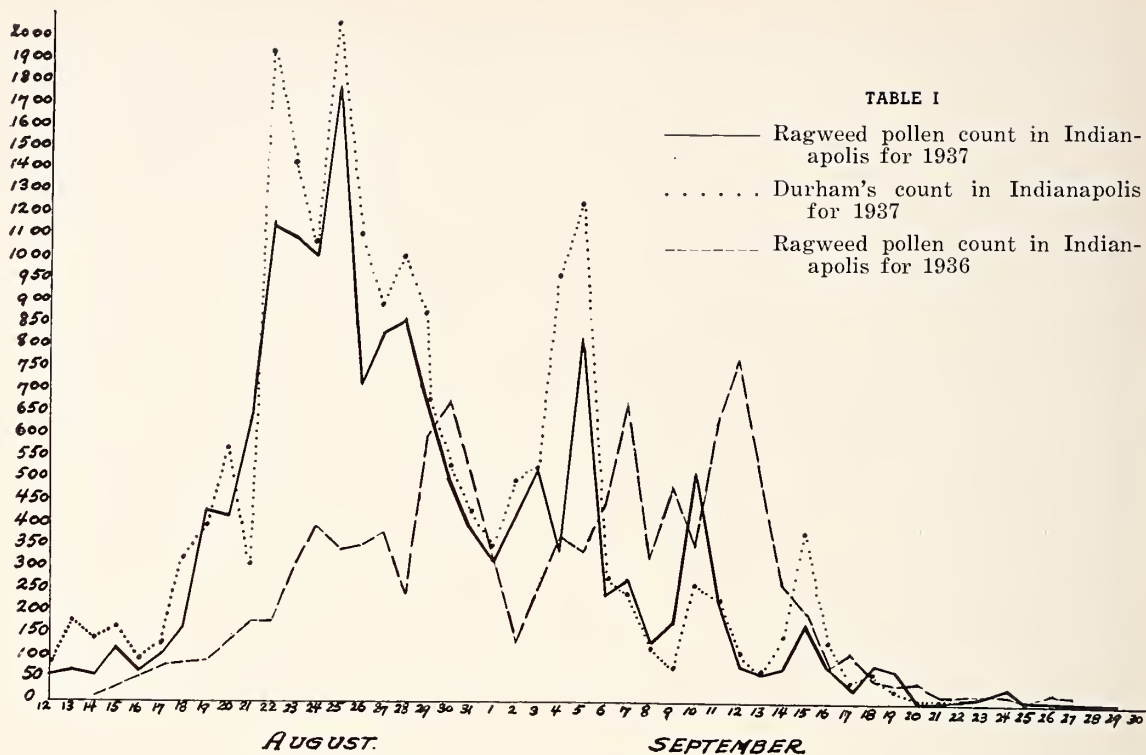
We claim no credit whatever for initiating the oral type of treatment and understand that the method was first used by Doctor G. E. Rockwell of Cincinnati. Through the courtesy of Doctor E. G. Stewart of Eli Lilly & Company, the oral pollen antigen was supplied for us. The ether extracted, dried ragweed pollen was dispensed in capsules, with an initial dose of 500 Noone units. The material was given thirty minutes before breakfast and was continued at weekly intervals in graduated doses until the thirteenth and maximum dose of 120,000 units was reached. This quantity was continued at weekly intervals until the end of the ragweed season.

Twenty-one patients received ragweed pollen orally. Eight had received no previous desensitization; of these, four had satisfactory results, and there were four complete failures. (Table II, Group I.) Six patients successfully treated by the subcutaneous injection method in previous years were given only the capsules. (Table II, Group II.) Of the six, there were three excellent results, two good results, and one complete failure. Thus, of fourteen patients in the two groups, there were nine satisfactory results and five failures. Six patients who had been treated by subcutaneous injection in 1936 with poor results received both oral and hypodermic medication. (Table II, Group III.) On this combined treatment, three of them were better than they had been in previous seasons. However, one worked in an air-conditioned office for the first time, another was in Florida until

* From the Allergy Clinic of the James Whitcomb Riley Hospital for Children.

¹ Durham, O. C.; *Journal of Allergy*, Vol. 8, No. 2, p. 175.

² Durham, O. C., Personal communication.



September 1, and the third received considerably more pollen by injection than in 1936. One patient's treatment was unsuccessful in 1935 and 1936 and just as unsatisfactory in 1937, even though she received 7,200 units by injection and 120,000 by mouth. One young man entered an eastern school where hypodermic injection was impossible; he took pollen orally and reported some trouble in August. Patient number 20 had severe abdominal cramps with nausea and vomiting on two occasions after the ingestion of 120,000 units of dried pollen. She had no asthma or urticaria. She was extremely sensitive to the injection of ragweed pollen extract, which precipitated attacks of severe dyspnea, widespread hives, and headache. These symptoms were provoked by 400 units given subcutaneously. (We make our own extracts, using 5 grams of dried pollen to 100 c.c. of 5% glucose. This is arbitrarily called a 1:20 solution. A 1:100 solution contains approximately 10,000 units to the c.c.) Hay fever and asthma were daily occurrences during the ragweed season, but the patient was able to continue at work for the first time in years. She was satisfied; we were not.

We do not feel that the results obtained in the six patients receiving combined oral and subcutaneous medication were better than would have been obtained had either of the methods been used singly. The single failure in the above group received no benefit when oral pollen was given in addition to ragweed injections. Another case record brings out the same point. Patient Number 21 was treated coseasonally in 1935 with poor results and

perennially in 1936, again with but little relief. She received oral pollen in 1937, and on August 14 developed hay fever and asthma which continued in a severe form until the end of the ragweed season. We had never been able to give her more than 500 units by injection; several severe general reactions occurred on less. She took 120,000 units by mouth and suffered severe gastrointestinal cramps every time the capsules were ingested, but no asthma. Placebos caused no reaction. Ten units given intracutaneously during the season produced a local wheal and erythema as large as the hand. This would seem to indicate that there was no reduction of skin sensitivity, even though large doses had been given by oral administration. Aside from the gastrointestinal symptoms experienced by these two patients (Numbers 20 and 21) there was no evidence that ether extracted, dried ragweed pollen given in weekly doses of 120,000 Noone units caused any deleterious effects.

In order to compare the relief obtained by the group receiving pollen orally, we are reporting an additional series of twenty-one patients who were given the usual pollen extract subcutaneously. (Table III.) The treatment was perennial or preseasonal and was continued at weekly intervals throughout the pollinating period. Since thirteen of the patients treated orally were below the age of twenty, we have included the same age distribution in this group. Otherwise, the cases were unselected. Of the twenty-one patients, results were excellent in eight; good in eight; poor in four; and there was one complete failure.

TABLE II

	Pt.	Sex	Age	Duration (Yrs.)	Other Allergy	ORAL TREATMENT		Previous Rx	E	Results		
						Skin Tests	Dosage Oral Hypodermic			G	P	F
GROUP I	1	M	36	17	None	2 plus	120,000	None				*
	2	M	44	Yrs.	None	1 plus	120,000	None		*		
	3	M	14	--	None	Negative ¹	120,000	None		*		
	4	M	12	1	Asthma	1 plus	120,000	None		*		
	5	F	9	2	Hives	4 plus	120,000	None		*		
	6	M	8	2	None	1 plus	120,000	None				*
	7	F	5	1	None	2 plus	120,000	None				*
	8	M	16	9	V. R.	Negative ²	120,000	None				*
GROUP II	9	M	17	5	Headaches	3 plus	120,000	E		*		
	10	M	8	3	None	2 plus	120,000	G	*			
	11	M	15	Yrs.	None	1 plus	120,000	G				*
	12	M	15	4	Headaches	1 plus	120,000	G		*		
	13	F	7	3	Eczema	4 plus	120,000	G	*			
	14	M	14	13	Asthma	2 plus	120,000	E	*			
GROUP III	15	M	45	20	None	2 plus	120,000 16,000	P	*			
	16	F	42	36	None	2 plus	120,000 3,800	P		*		
	17	F	30	17	Hives	4 plus	120,000 3,200	P		*		
	18	F	35	17	None	4 plus	120,000 7,200	F				*
	19	M	19	5	None	4 plus	120,000 7,500	None		*		
	20	F	40	33	G. I.	4 plus	120,000 400	None			*	
	21	F	36	18	None	4 plus	120,000	F				*

¹ Negative by scratch and intradermal methods.² Positive by intradermal method.

Key: E, excellent; G, good; P, poor; F, failure.

Age was probably the biggest factor in successful treatment of ragweed sensitivity. Of those below the age of twenty, twelve of the thirteen were successfully treated, and below the age of twenty-five, sixteen of twenty-one had satisfactory results. Other factors of less significance were: (1) sex—results were slightly better in males than in females; and (2) type of treatment—that is, perennial treatment showed slightly better results than preseasonal. Within limits, the larger the dose, the better were the results. Treating the very sensitive was frequently wasted effort.

Comparison: Sixteen of twenty were successfully treated by subcutaneous injection, but similar results were obtained in only thirteen out of twenty-one by oral ingestion. If one excludes the group which received both oral and subcutaneous desensitization, the results were considerably closer, nine of the fourteen being successful. Oral ingestion of pollen offers an easy method of desensitization; in this small series of cases, however, the results were poorer than by subcutaneous desensitization.

Table IV shows the results from twenty cases

TABLE III

HYPODERMIC INJECTION

Pt	Sex	Age	Duration	Other Allergy	Skin Tests	Type of Rx		Dose	Results			
						Per. ¹	Pre. ²		Excellent	Good	Poor	Failure
1	M	60	Yrs.	None	1 plus		*	3,600			*	
2	F	52	8	None	1 plus		*	1,000			*	
3	M	57	17	None	4 plus		*	5,200	*			
4	M	38	15	Grass	2 plus	*		20,000	*			
5	M	10	6	None	4 plus	*		17,000	*			
6	M	19	13	Tree Food	4 plus	*		6,000	*			
7	M	13	7	Asthma	1 plus		*	8,000		*		
8	F	23	11	Asthma	4 plus	*		10,000		*		
9	F	18	2	Grass	4 plus		*	2,700				*
10	F	18	6	None	1 plus		*	3,600		*		
11	M	13	4	None	3 plus	*		10,000	*			
12	M	24	15	None	3 plus	*		3,800		*		
13	F	42	8	None	4 plus		*	470			*	
14	M	42	20	Asthma	4 plus	*		7,200			*	
15	M	12	8	None	4 plus	*		13,000		*		
16	F	13	11	None	4 plus		*	9,500	*			
17	M	8	3	V. R. ³	2 plus	*		11,500	*			
18	F	9	4	Asthma	4 plus		*	17,000	*			
19	M	14	10	Asthma	2 plus		*	8,000		*		
20	F	14	2	None	4 plus		*	6,500		*		
21	F	6	2	Grass	1 plus		*	9,000		*		
TOTAL						9	12		8	8	4	1

¹ Perennial.² Preseasonal.³ Vasomotor rhinitis.

TABLE IV

Pt.	Sex	Age	COSEASONAL TREATMENT				Results			
			Duration (Yrs.)	Other Allergy	Skin Reaction	Units	E	G	P	F
1	F	19	3	None	4 plus	400				*
2	M	40	Yrs.	Food	4 plus	1,000			*	
3	M	15	2	Grasses	2 plus	370		*		
4	M	5	3	Food	3 plus	40		*		
5	M	27	Yrs.	None	4 plus	70			*	
6	M	40	3	None	4 plus	70		*		
7	M	28	2	None	Negative ¹	25,000				*
8	F	16	4	Asthma	4 plus	40			*	
9	M	6	4	Asthma	Negative ²	1,000		*		
10	F	5	2	None	2 plus	40	*			
11	M	8	2	None	1 plus	40		*		
12	F	5	1	None	2 plus	40		*		
13	M	24	2	None	2 plus	100		*		
14	F	19	3	None	4 plus	450				*
15	M	12	4	None	2 plus	50			*	
16	M	14	5	Food	1 plus	80				*
17	M	35	Yrs.	Asthma	3 plus				*	
18	F	8	2	None	Negative ¹	30				*
19	F	15	3	Grasses	4 plus	40	*			
20	M	18	4	Grasses	2 plus	200				*

¹ Negative by intradermal method.

² Positive by intradermal method.

Key: E, excellent; G, good; P, poor; F, failure.

treated coseasonally. We attempted to treat the individual daily with very small doses of ragweed pollen extract intracutaneously. Of this number, two had excellent results, seven were considerably relieved, five had poor results, and six were complete failures. We believe that the large number of failures in this group was due to the fact that several of the children were Clinic patients seen only at weekly intervals at the Riley Hospital. Nine of twenty patients were much improved by this method of treatment. Patient Number 10, a girl of five, began with severe hay fever on August 13. She received 4 units intracutaneously and daily injections thereafter for three weeks. After the second injection of 40 units, she had no further symptoms; this dose was maintained for the rest of the ragweed season. We have had several similar experiences and suggest a more wide-spread use of this method of treatment when patients are seen too late for preseasonal treatment. We feel that the coseasonal type of treatment is not used as generally as it should be.

SUMMARY

This paper records the results obtained in desensitization of sixty-two ragweed sensitive patients.

1. Ether extracted, dried ragweed pollen was given orally, the maximum dose being 120,000 Noone pollen units. Of twenty-one patients, mostly children, thirteen were satisfactorily relieved.

2. Twenty-one patients of the same age distribution received either perennial or preseasonal injection treatment, continued at weekly intervals through the ragweed season. Amelioration of symptoms was satisfactory in sixteen. Subcutaneous injection in this small series of cases was better than oral desensitization.

3. Nine of twenty patients were benefitted when treated coseasonally by intracutaneous injection.

4. Thirty-eight of sixty-two patients (61.3%) were satisfactorily improved by some form of desensitization, in spite of the highest pollen count ever recorded in Indianapolis.

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ABSTRACT: DIAGNOSIS OF HEART DISEASE IN CHILDREN: REGRESSION OF PHYSICAL SIGNS

The criteria essential for a diagnosis of organic heart disease are stated to be (1) characteristic constant physical signs and (2) enlargement of the heart. The reliability of these criteria in determining the presence of organic heart disease, as well as in differentiating acquired and congenital abnormalities, is the basis of MAY G. WILSON'S, New York (*Journal A. M. A.*, February 12, 1938), analysis of the records of a series of children observed in a cardiac clinic during the years 1916 to 1935, inclusive. Analysis of the physical examinations recorded for the series of children with organic heart disease, congenital and acquired, revealed that characteristic murmurs may become uncharacteristic or inconstant at times. Persistent chamber enlargement and abnormality of the cardiac silhouette were demonstrable when the physical signs were inconstant or un-

characteristic. The diagnostic value of roentgenologic examination in the oblique views was confirmed by the postmortem appearances in two patients. In 36 per cent of fifty-seven children with congenital heart disease, characteristic physical signs regressed. In only 11 per cent of 179 children with mitral insufficiency was a characteristic constant systolic murmur present at each examination. In 81 per cent the systolic murmur was at times indistinguishable from the so-called benign systolic murmur. In about 60 per cent of 135 children with mitral insufficiency and mitral stenosis, the systolic murmur was characteristic, and in about 40 per cent uncharacteristic. In only about 35 per cent of 118 children with mitral insufficiency and mitral stenosis was the diastolic murmur constant and characteristic. In 65 per cent, when the murmur was inconstant or uncharacteristic enlargement of the left auricle was demonstrable.

A REVIEW OF SYPHILIS*

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CHARLES W. MORRIS, HARRY N.
McCLELLAND, JOHN F. SPAHR

Indianapolis

HISTORY OF SYPHILIS

For at least five centuries mankind has battled with syphilis. Its origin has long been a debatable question with historians.

"Syphilis was brought to Europe by Columbus and his sailors who returned with it from the New World, and thence it was spread by various travelers," some historians say. Others contend that "Syphilis was present in Europe before Columbus saw the light of day. It was known to ancient civilizations, and the fifteenth century epidemic was only a recrudescence." And so the battle rages between the Americanists and the anti-Americanists, those who insist that syphilis was a new disease in Europe at the end of the fifteenth century and place the blame for its importation upon Columbus and his sailors who had acquired the disease from women on the island Haiti, and those who believe that it was a disease that had been well known for a long time before the voyages of Columbus and merely underwent an exaltation in virulence about that time.

There are also those who believe syphilis to be a degenerated form of the well known and often mentioned disease, leprosy, or one of the several undifferentiated diseases grouped together under the name of leprosy. Even Paracelsus is credited with saying that the disease originated from coitus between a leper and a prostitute who had venereal buboes. Francis Bacon even brought forward an origin linked with the diet. He coupled it directly with the consumption of pickled human flesh sold by dishonest merchants. About these theories very little is heard.

The first two are the best known and most discussed theories, and some of the arguments from both sides are presented.

Chief among the present day Americanists is William A. Pusey, whose *History and Epidemiology of Syphilis* represents a prodigious amount of painstaking effort. His arguments are based in part upon the writings of medical men of the late fifteenth, entire sixteenth, and subsequent centuries, in part upon paleopathological studies made in the Old World and in the New World as well.

Early works cited by Pusey are by Albrecht Dürer who, in 1496, made an illustration of a syphilitic in a pamphlet; by Bartholomew Steber who published his *Treatise on Syphilis* in 1498; by Leoniceus, 1497; one by Jean Fernel, 1506, who discovered that the causative agent of syphilis could not pass through the unbroken skin; and by Jean Astruc, 1736, whose *De Morbus Veneris* is a very complete work which reviews the theories of the cause of syphilis and gives a great deal of evidence for its American origin. He was, according to Roswell Park, the first writer favoring the American origin of the disease, although C. E. A. Winslow maintains that that belief prevailed during the sixteenth century.

Winslow agrees with Pusey on the point of the finding of numerous skulls and long bones in pre-Columbian graves of aboriginal American races showing signs of syphilitic infection.

Among the supporters of the pre-Columbian European origin of the disease is Sudhoff who found an Italian manuscript at Copenhagen dated 1465, containing recipes against the mal franzoso, the handwriting of which pointed toward the first quarter of the fifteenth century. The old Swiss archives indicate that Scabies Gallicana or Grossa Verola was regarded as a new disease in 1431.

The influence of the stars upon man's destiny is noted when it is mentioned that Paul von Middelburg predicted on the occasion of a conjunction of Mars, Jupiter, and Saturn in the sign of the Scorpion, November 24, 1494, an epidemic of venereal disease.

One of the most controversial of the old writers is Ruiz Diaz de Isla, whose text has been used to support both sides of the argument. Pusey and Winslow allude to his description of the treatment of several of the sailors of Columbus; among these was the pilot, Pinzon of Palos. This new disease, with which these sailors had returned, Diaz called the Serpentine Disease. Pusey accepted Jean Astruc's report of the Montejó translation of Diaz's work, but R. C. Holcomb finds the Montejó translation faulty.

Holcomb translated the Diaz work from the original in the Huntington Library in San Marino, California, and found that Diaz gave two accounts for the origin of syphilis, neither of which was original with him at the time he wrote (1540). The first has already been mentioned. The second account states that his Serpentine Disease is identical with a disease, described by Pliny fourteen hundred years before, characterized by ulcers of the whole skin, attacking the penis first, transmissible by kissing, and called mentagra, lichens, or empeynes. Hol-

* Editor's Note: This article, prepared by a group of medical students, is published because the editors consider it to be timely, authoritative, and interesting. In addition, it shows the method of examination used in the Department of History of Medicine of the Indiana University School of Medicine where the class is divided into groups of five and each group is assigned a subject upon which a major thesis is to be presented. The purpose primarily is to acquaint sophomore medical students with the use of the library and the preparation of adequate bibliographies.

comb mentions the fact that other writers of the time, and earlier, alluded to Pliny's work, holding that mentagra and syphilis were the same—even Girolamo Fracastoro, whose poem, "Syphilis or the French Disease," gave syphilis its name (1530).

Garrison, the present day historian, says that syphilis was present in China in the fourteenth century, and that it may have been known as early as the twelfth century.

Park says that Jourdan believes in the very early origin of syphilis, that its diverse manifestations were known and described even in remotest antiquity but were not supposed to be the result of the same disease until about 1500. He says further that David, the Psalmist, is thought to have been afflicted and that the Latin poets Horace and Juvenal describe symptoms suggesting syphilis arising after sexual indulgence. He states with conviction that it is a certainty that syphilis broke out in Naples before the arrival of the Spanish fleet carrying some of the second voyage sailors of Columbus, and that at none of the points where Columbus touched on his return from his first expedition was there any syphilis for several years.

Holcomb has studied the ship's log of Columbus and has found no mention whatever of any disease new to the men but did find the remark that they were exceptionally healthy, and that the islands of San Domingo and others were described as being earthly paradises. He believes that the "myth" of the Haitian origin of syphilis was started as a sort of sales talk for the "Holy Wood," or guaiac, which was brought from the New World as a reputed cure for the disease. The superstition prevailing at that time was that wherever Nature placed a poison there also she placed its antidote, so the importers of the wood started the story of the American origin of syphilis in order that they might have a market for their wood. Whether they started the story or not, it is certain that the holy wood brought a high price and caused imitations, as in any age.

Whether the disease was brought back to Europe by Columbus or not, the fact remains that Europe became as syphilis-conscious during the sixteenth and seventeenth centuries as America is becoming today. The disease was much more severe than now, and death was not infrequent during the second stage. Thus we see in the work of Fallopius ". . . There (West Indies) the Disease is mild, like the itch among us, but transplanted hither it is become so fierce and unmerciful, . . . as to corrupt the whole Bowels."

Whether the disease was brought back to Europe by Columbus or not, conditions were at that time ideal for its spread. The political unrest during the latter part of the fifteenth and early part of the sixteenth centuries, with the military movement of large bodies of men, would have induced rapid dissemination of the contagion. The expulsion of the army of Count Gilbert from Naples in 1496 caused a scattering which marks the spread of syphilis through many of the countries of Europe. Vasco de Gama is said to have carried it to India

in 1498; the Jews and Mohammedans who were driven from Spain may have carried it to Africa. The sudden establishment of this disease throughout the world is paralleled by no other disease. It has been said that civilization and syphilization have advanced together. It is no wonder that the disease acted as a sharp stimulus to medicine during these years, and medicine experienced a renaissance. Between 1497 and 1501 a dozen medical tracts on the subject appeared.

With this great awakening to a wide-spread and insidious enemy it is scarcely to be wondered that non-medical writers should mention it, and because of its peculiar mode of transmission it is likewise easy to understand why the sufferer from syphilis was not only not pitied but was made the butt of many a pungent prank in poem, play, and persiflage. There was not the moral stigma attached to the affliction then as now, and it was as common among the rich as among the poor. Extra-genital and "innocent" infection was recognized, and those individuals acquiring the disease in that way generally bemoaned the fact that they had all the pain and none of the pleasure.

Very frequently in those days in the course of the disease the deformity known as "saddle-nose" appeared, and at once branded the individual as a syphilitic and laid him open to the caustic wit of the century. The desirability of disguising the appearance of the nose as much as possible gave rise to a rather ingenious procedure. Two small corks perforated with quills (to permit breathing) were inserted into the nostril to bolster up the sagging contour.

Another tribulation of the luetic was to have his hair fall out—the syphilitic alopecia—the resulting baldness being referred to in the vernacular as the "French crown," that name serving as the basis for a goodly number of double entendre sayings.

Silvette, who has made a special study of the non-medical literature of the period, reports that one of the most common curses pronounced by one individual upon another was that of praying that he might fall victim of "the pox," or syphilis. Further perusal of his entertaining anthology discloses the fact that the modes of treatment, drastic as they were, supplied more material for jokes, and this was true especially of the active mercurial medication of the day. This medication left the sufferer greatly emaciated and frequently without a tooth in his head, but also not infrequently without the disease. In one play the master directs a servant to be quick about doing something, and the servant replies that he will be the personification of speed, since he is half Mercury already.

But fashions change, and during the nineteenth and early twentieth centuries syphilis became a word mentioned only behind closed doors; a disease which carried with it not only physical pain but social disgrace and mental anguish—queer paradox that a scourge afflicting so many millions of people should so long be shrouded in mystery and darkness. Especially queer it is in an age when the

searching light of scientific investigation (spurred on by public demand) has been directed so intensely toward the discovery of means to relieve human suffering. Here the fault was not with the scientist but rather with society, since means of prevention and cure have been available for some time. We know that Cotton Mather declared syphilis to be a punishment for sin, and this ignorance paralleled his religious bigotry. The word morality, as used by society in thinking of syphilis, had been corrupted and now signified right and wrong with reference to sex. Hence the immorality connected with the disease intimated illicit sex relation with the resultant infection as punishment for the deviation from the moral code of the early twentieth century. We now feel that any disease may be said to be immoral with the morality of the body being health.

The controversy over the origin of syphilis may rage, but that is a matter of purely academic interest. Today we are concerned with the eradication of the disease, the prevention of widespread infection, and the restoration of those now suffering.

HISTORY OF PATHOLOGY AND DIAGNOSIS

Diagnostically speaking, there are two types of syphilis, the external and the internal manifestations, each of which is difficult to differentiate from a great number of other diseases which produce like symptoms. It is these extensive similarities which have gained for syphilis the title of "The Great Imitator," for it is said that there is no known symptom which syphilis cannot produce at some time during its ravages. The great Osler has said, "To know Syphilis is to know medicine," for an understanding of syphilis is in itself a thorough knowledge of pathology and diagnosis. Correct differential diagnosis is at a premium where syphilis is concerned, especially in the internal periods, for the organs are herein affected and present diagnostic problems without a peer in the list of diseases. Syphilis, being first of all a skin disease, early in its course manifests external symptoms, which demanded many years of increasing knowledge in order to arrive at specific evidence for correct diagnosis.

It is these complications of a disease which is a great mutilator and also a great social problem which caused so much controversy and uncertainty among the early workers and which has made syphilis a challenge to the great minds of medicine since the disease was first recognized. For many eras, the most brilliant men have struggled with the diagnosis of the comparatively new disease until most of its secrets are now revealed.

The diagnostic methods by which syphilis was recognized as a separate clinical entity are controversial previous to the last of the fifteenth century. Varying interpretations of the writings prior to this time do not give positive evidence; however, studies of rather obscure methods of treatment and osteological research seem to indicate that syphilis

was present at least to some degree in the lives of the ancients. The assumption that syphilis was present in China as far back as the Ming dynasty in 1368 is based on the fact that the Chinese *ateria medica* of that time included the use of mercury for inunction and fumigation in the treatment of what is now thought to be syphilis. It is generally conceded that the therapeutic use of mercury was recognized quite early in cases where skin eruptions were current. However, the Chinese probably were unable to isolate the skin eruptions of syphilis and certainly knew nothing of the peregrinations of the later stages of the disease.

The studies of pre-historic and pre-Columbian skulls in Europe by Virchow seem to establish the fact that the so-called caries sicca was not true syphilis but was either identical with the arthritis deformans of old cave bears or else was caused by plants or insects. In the introduction to the papyrus Ebers written by Elliot Smith he says the erosion of the bones found in Egyptian tombs has been conclusively proved not due to a spirochete but to a gnawing necrophilous beetle after burial of the body. On the other hand, in 1170, Rogers' *Practice*, an outcome of the school of Salerno, mentioned what is believed to be syphilis. It is true that as far back as the twelfth century in Europe, mercury inunctions had been used for a variable group of skin eruptions. Sudhoff thinks that those yielding to treatment were probably syphilis. This, however, is no proof as to its singularity for had syphilis been recognized it certainly would have been mentioned somewhere in the works of Chaucer or Boccaccio. It is said that the "le gros mal" was mentioned in open court at Dijon in 1463. Other definite references made in earlier fifteenth century writings seem to indicate that syphilis, or some disease with pathological manifestations akin to it, was recognized in Italy as early as 1429 and in Switzerland by 1431. These evidences, however, must be considered as merely presumptive and do not in any way reflect the ability of the people of that time to consider syphilis as a separate entity, especially after the cutaneous manifestations had disappeared. The end result of Sudhoff's investigation is to the effect that, from the twelfth century on, medieval physicians recognized an anomalous group of skin diseases, all treated with mercury, of which some were probably syphilitic.

According to Cumston some facts have been correlated which would indicate that the "Persian fire" of Hindustan was but a syphilitic pathological manifestation. The manifestations of the acute type of leprosy is probably syphilis, as distinct from the type of leprosy which runs a long course. These two types were also described at this time. He also cites Celsus, et al, as describing syphilitic manifestations such as ulcers, fissures, affections of tonsils, buboes, tubercles, ulcers of scrotum, pustules, exostoses, etc., "following the wild revelries of the hysterical bacchantes who indulged in all forms of sexual excitement even with slaves." Celsus even describes ulceration so profound that the glans

dropped off. Marcellus the Empiric states that bubo follows ulceration of the penis. William of Salicet in 1280 A. D. describes bubo of the inguinal region arising as a disease contracted from some "filthy public woman." These manifestations are surely syphilis.

After 1492, syphilis was definitely recognized as a new disease, for at that time Paul von Middelburg announced the approach of an epidemic of a fearful venereal disease, to reach its height about 1500, and gave a series of resulting diagnostic symptoms which were strikingly like those of present day syphilis. It was supposedly transferred to Italy by Columbus' sailors, and it soon became pandemic and spread northward from Italy. Here was a new disease suddenly thrust upon the attention of man. History was of no assistance. It was an ideal means of stimulating men's minds to objective study and it supplied a new stimulus to activity of medical thought. The story of the growth of diagnosis and knowledge of syphilis is an epitome of the history of the growth of modern medicine.

By 1497, a tract on syphilis had been written by Leonicens, opening the gate for what Garrison has called "the huge output of syphilographers." In 1498, the first treatise on syphilis appeared in Spain, published at Salamanca and written by Francisco Lopez de Villalobos and entitled "Treatise on the Pestilential Bubas." He says that the Scriptures mention the fact that Pharaoh was punished by God for being seduced by Sarah and was smitten on the organ of generation with this illness or one comparable to it. He also recognized the appearance of a penile ulcer, and the general manifestations of the disease, of great pain, feebleness, and lividness of complexion. In France it became known as "the greater pox" to distinguish it from the small pox. The men of this time approached diagnosis from many angles and, by 1800, skin eruptions, mouth and throat lesions, loss of hair, involvement of bones and joints and of the nervous system and internal organs, the infectious character of the chancre, the necessity of skin abrasions for infection, hereditary syphilis, and modes of transmission were understood. It was realized that no part of the body was immune to the ravages of the disease. A remarkable list of 191 varieties of syphilis were described in this period. Paré was the first to recognize aortic aneurysm as a sequence of syphilis. Leonicens described syphilitic hemiplegia in 1497.

Giovanni di Vigo, surgeon to Pope Julius II in 1503, discussed the pathology of the disease stressing contagiousness from sexual intercourse and rapid dissemination throughout the body. He described the indurated chancre, secondary eruptions, gumma formation, worse pain at night and subsidence by day. He also describes eye lesions and ulceration of the nose. The first signs appear on the genitals consisting of small ulcerated pimples, brownish or livid, black or pale in color, circumscribed by an area of hardness. The skin becomes

covered with scabby pimples or elevated papules resembling small warts. These appear on forehead, skull, arms, legs, and sometimes over the entire body. About a month and a half after its first appearance the disease manifests itself by severe pains in the frontal region, shoulders, arms, legs, and hips. A year or so later there appear hard tumors producing great pain at night, less by day.

Juan Almenar, a Spanish physician, in 1502 wrote on the venereal disease and, being a man of deep religious feeling, he attributed the disease in priests to corruption of the air. He recognized that this was seldom the method of transmission while "carnal copulation" was the common cause. He gives the lesions' location over the entire body and mentions that pains in the neck, shoulders, joints and extremities are lessened by day because of the mind occupying itself with other things. Like his contemporaries he attributes the different types of lesions to the various humors. "If the payne be sharp, quickly arising, pustules little, ulcerated and skinned rough, they come of choller. If the payne come slowly, pustules broad and whitish, they are of fleame," etc. Syphilis, with its constitutional symptoms, was distinguished from the long known venereal diseases at the beginning of this period. The chancre was recognized as the typical lesion, and gonorrhea and soft chancre were separated from it by their lack of constitutional symptoms. The first confusion was unfortunately initiated by Paracelsus in 1530 when he called syphilis French gonorrhea, and by 1550 this confusion was current and was but gradually cleared up.

In "Collectis Veneta II Liber de Marbo Gallico," published at Venice in 1535, Niccolo Leonicens describes ulcers of the mouth and lips, black pustules like carbuncles with intolerable itching. From it we find, "The French disease has many pustules, generated from the diverse corruption of the humors, because of too much air in the heat, and humidity especially intemperate, at first on the privates, then the rest of the body." He also describes eye lesions, buboes, joint pains, and notes at autopsy lesions of internal organs.

Ulrich von Hutten (1488-1523) who, it seems, had the disease, wrote a widely read treatise on "De Morbo Gallico" published in 1519. He speaks of the chancre in the vagina and its relation to the transmission of the disease. He recognized the relation between syphilis and palsy, apoplexy, gout, and believed it caused the onset of leprosy. He speaks of the cankerous and fistulous sores and the involvement of the bones. Edema, sores in the bladder, stomach, and liver were also described by von Hutten.

Fracastorius, in 1546, recognized the various methods of transmission besides coitus. He cites contagion in infants from suckling infected mothers or nurses. He also mentions the latent stage. Pudendal ulcers, pallor of skin, melancholia, lassitude, pustules over the body, indurated ulcers dripping a "fetid, mucilaginous mucus," are described. Ulceration and erosion in the oral cavity, erosion

of the fauces and lips, nose, eyes, and even the genitalia are described. Gummata containing caseous material, pain, either with or without eruptions on the skin appearing in the extremities, and the dejecta are mentioned at some length. Fracastorius also mentions a change in the pathological manifestations as seen in his time. The first cases showed more gummata, the pustules were drier, and the pains sharper. Then, he says, after a few years, pustules became less frequent, pains became less severe or even absent, gumma formation still occurred, but the falling of hair of the body seemed marvelous. This was first thought to be due to mercury but he says as they became better informed they knew it for a manifestation of the disease, even to the loosening and loss of teeth. We now believe that general paralysis is now at its height and has come up through a gradual increase since early in the nineteenth century.

In 1563 Fallopius developed a sort of mechanical protection to prevent infection after the extreme infectious character of the disease was recognized. He also assumed the common occurrence of contraction of extra-genital contact. Jean Fernel made the important discovery that the syphilitic infectious agent needed a break in the skin for its entrance. He traced the course of the disease and showed that the chancre was first and that general infection followed this.

The progress of knowledge continued in the seventeenth and eighteenth centuries. A diagnostic milestone was passed by Bazin and Musitano in 1628 when they emphasized the diagnostic importance of the induration of the syphilitic chancre, antedating by 150 years John Hunter on this observation. Autopsy examinations demonstrated syphilitic manifestations of the nervous system, cerebral gummata, syphilitic neuralgias and meningitis as well as spinal lesions, syphilis of the liver, spleen, kidney, heart, blood vessels, lungs, trachea, and larynx.

Contact contagion was recognized as the mode of propagation, and this contact with the more moist, soft, spongy parts are more likely to lead to infection than with the cold, hard parts.

By the eighteenth century, there had accumulated a great fund of knowledge for the diagnosis of syphilis. The symptoms had been fully described and the distinction between syphilis, gonorrhea, and chancroid had been fully described. Syphilis of internal structures was fully worked out. Hereditary syphilis was well known and its most important facts described by Hutchinson whose triad of peg-shaped adult teeth, chronic keratitis, and deafness was established by his studies. The teeth affected are the central upper incisors of the permanent set, and if they are short and narrow and have a deep vertical notch in the free edge, they are indicative of an encounter with syphilis. These teeth also present a semi-translucent appearance. Hutchinson, it is said, in his lifetime saw over a million patients who suffered from syphilis.

In the period between 1500 and 1800 all the facts

of syphilis that could be ascertained then had been worked out and were a part of universal medicine exciting wide-spread interest then as now. At this point John Hunter, an able man but too narrow in vision, retarded progress in venereal diagnosis by clouding the picture with his now famous mistake. He made no distinction between chancroid and chancre, and claimed that the virus of gonorrhea and syphilis were the same. He said that a secreting surface predisposed to gonorrhea and a non-secreting surface to chancre. To prove this, he inoculated his skin, a non-secreting surface, with the pus from a gonorrhea case which happened also to contain *Treponema pallida*, and he contracted undoubted syphilis from a known case of gonorrhea. He did not recognize the possibility of a mixed infection and so believed his experiment confirmed the unity of gonorrhea and syphilis. He even went so far as to deny hereditary syphilis and syphilis of internal organs although he knew the work of his predecessors. Strangely enough his ideas were accepted, and the diagnosis of syphilis was all confusion for seventy years after the time of Hunter and then began a gradual groping for light. In his *Treatise on the Venereal Disease* Hunter gives a minute detailed description of the progress of the disease. He describes the pain accompanying urination, sloughing at the site of inoculation. The recurrence of indurated chancre on prepuce was carefully noted. The swelling in the groin was noted and mercury used to reduce it somewhat, under local application. Ulceration on the tonsil was then noted and mercury used in quantity to promote healing, not to cure the disease. After he had allowed recurrence of the tonsillar chancre for about three times, he took sufficient mercury to cure the infection, his time involved being three years. He also concluded that chancre on the foreskin runs a more rapid course than on the glans; to resolve a bubo use mercury on the legs and thighs, and to resolve the bubo does not mean that the disease is cured; mercury may keep the disease dormant while treatment is in progress, but out-break may occur later.

The work of the French was almost alone responsible for the epochal advances in the knowledge that cleared up the confusion left by Hunter. Philippe Ricord and his followers in 1850 once more established the facts. Ricord really opened the door for a final thorough study of the disease. Bassereau differentially diagnosed chancre and chancroid. He established the facts that a soft chancre is painful, runs a speedy course, heals leaving a scar, is dirty looking and soft, shows little induration, is rarely single, can be inoculated into other parts of the body, and is usually accompanied by a clump of suppurative lymph glands in the groin. All these characteristics are opposed to those of syphilis. Diagnosis was made yet more positive when Neisser and Ducrey isolated the germs of gonorrhea and chancroid respectively. Two great French schools sprang up following Ricord, and these have virtually brought the knowl-

edge of syphilis to the present state. To the school of Diday is owed the diagnostic procedure in many hereditary deformities caused by syphilis. The Fournier school recognized the degenerative changes as being of syphilitic origin; Fournier himself was first to recognize the fact that there was a relationship existing between syphilis and tabes and syphilis and paresis.

By 1900 clinical syphilology had done all it could with knowledge, work, and sacrifice, but a few things remained to be done. Animals could not be inoculated, for the germ had not been discovered and diagnosis of the late stages was not certain. Since then discoveries have come fast. In 1903 Metchnikoff found that syphilis could be inoculated into apes. Schaudinn and Hoffman in 1905 ended the long search by isolating the germ of syphilis, now called *Treponema pallidum*.

In 1906 Noguchi proposed the luetin test, consisting of a killed emulsion of *Treponema pallida*, injected intradermally as a skin sensitivity test for diagnosis of syphilis. While it was used extensively after its discovery, the test has not since proved very useful for it was found that a sterile emulsion prepared from agar alone often produced a similar skin reaction.

In the same year (1906) the Wassermann came into use. It is a complement-fixation test and is commonly called the Wassermann reaction, although not absolutely correctly, for Wassermann, in devising the test, used principles already known. However, this test has been used extensively as a diagnostic method for distinguishing between syphilis and other diseases of the nervous system. It is not specific, for other diseases such as leprosy, malaria, and some scarlatina cases also react positively to the test. Wassermann started from the Bordet-Gengou doctrine of the complement-deviation by known micro-organisms and tried to apply this phenomenon to diseases the organism of which was not as yet known. He used, in place of a pure culture of the organism, organs which may or may not contain the organism of the disease in question: viz., in syphilis, the liver of a luetic fetus is plentifully pervaded with spirochetes. After preliminary work, he published, with Neisser and Buck, details of a reaction by means of which it can be proved that an individual, at some time during his life, has been infected with syphilis. This original method still proves best, although several modifications have been introduced.

The test depends upon the presence of antibodies in the serum in question. If no antibodies are present, the complement is not fixed and the corpuscles are dissolved, such hemolysis being read as a negative reaction. The test is probably not so easy as to be a simple antigen-antibody reaction. The differential diagnostic power of the test is not absolutely certain, the reaction being negative in 35 per cent of tabes cases. In spite of this and a few other shortcomings, however, it is still the most widely used and trusted diagnostic procedure for the determination of syphilis.

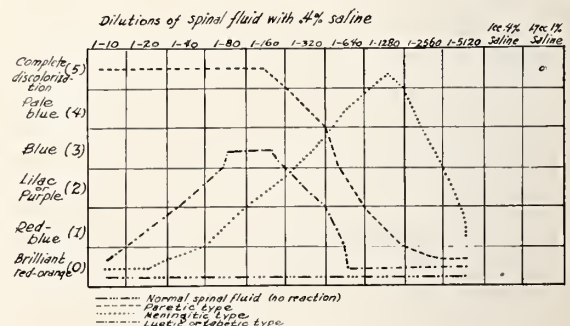
In 1907, Michaelis described a test for syphilis which required only serum and a saline extract of syphilitic liver, and which produced a visible precipitate in a positive reaction. Very little attention was paid to this work, however, as complement-fixation tests were rapidly gaining favor. In 1917, tests were based on the appearance of a white precipitate when an alcoholic extract of a normal heart muscle (the antigen of the complement-fixation test for syphilis) is added to the blood serum of a syphilitic individual. Recently the name of "flocculation test" has been ascribed to this and it has been extended and modified by Kline, Kahn, and others.

The Wassermann test requires the careful preparation of five main ingredients. The flocculation test, on the other hand, requires but two main ingredients, antigen and patient's serum. The flocculation test is much simpler than the Wassermann, affords less opportunities for error, and offers less technical difficulties. In other words, this is a direct test, and the Wassermann is an indirect one. The ingredients used in the flocculation test are more concentrated, so that it is at least 10 per cent more sensitive than the Wassermann.

Lange's colloidal gold test, introduced in 1912, now widely used, is based upon color changes when cerebrospinal fluid is mixed in certain proportions with a colloidal solution of gold. Normal cerebrospinal fluid causes no change in color. Changes in color of the gold solution to red, blue, purple, or colorless are given by fluids from paresis, tabes, and other pathological conditions of the nervous system. The dilution at which the color change occurs is significant of the extent of the condition. The most consistent and valuable results of the test are given in the paretics and it is for this condition that the test is most widely used. The exact mechanism of the test is not entirely clear but may perhaps be dependent upon the presence of a globulin. A typical paretic curve is, as shown below, 5, 5, 5, 5, 4, 2, 1, 0, 0, when read in this test.

A sample typical curve chart is shown below.

A recent method of diagnosis of early syphilis is the detection of the *Treponema pallidum* in fresh blood by use of a dark field condenser. Dark field illumination consists in blocking out the central rays of light and directing the peripheral rays against the microscope object from the side. Only those rays which strike the object and are reflected upward pass into the objective. The object thus



appears bright upon a dark background. Very minute objects can thus be seen, as particles of dust in the atmosphere become visible when a ray of light enters a darkened room. By this method the *Treponema pallidum* appears as a tight spiral, motile organism with pointed ends. It is slightly longer than a red blood corpuscle is wide and has uniform undulations 5 to 12 in number about 1 μ in amplitude. It is found in primary, secondary, and tertiary lesions but is not present in the last stage in sufficient numbers to be of diagnostic value. The organism can be obtained from all syphilitic skin lesions in the early stages and from the tissues, blood, and body fluids in more advanced cases. Upon ulcerated surfaces it may be mingled with other spiral organisms, notably *Borrelia refringens* but which has only 2 or 3 loose and irregular spirals. *Treponema pertenue* (yaws), *Treponema mucosum*, and *Borrelia vincenti* are other "spirochetes" found in mouths which are none too healthy. Experience is necessary to arrive at a correct diagnosis when these contaminants are present. The *Treponema pallidum* and its allies stain very weakly, hence the term "pallidum" (pale), and so the usual staining methods have given way to this dark field method where no stain is employed. If staining methods are used, Giemsa's stain is one of the best and shows the *Treponema pallidum* as red while most other organisms are blue. India ink is also used at times and the *Treponema pallidum* appear as light on black, much as they do in dark field illumination.

Acquired syphilis has been arbitrarily divided into four stages as a diagnostic aid. Each stage presents different pathology and demands separate differential diagnosis. Primary syphilis ordinarily shows a typical chancre at the point of entrance of the germs. In this stage the distinction must be made between chancre and chancroid, if not by clinical evidence then by dark field examination of the exudates. The secondary stage appears at about the time that the chancre leaves, the germs invade the blood stream and are spread throughout the tissues, usually causing some sort of systemic symptoms and often a skin rash. Following this there is typically a period of latency which may be from 1 to 20 years, usually 6 to 8. It is in this stage that diagnosis is most difficult, for the organs are affected and may show almost any symptoms, one of which is the gumma. Recently, however, due to better and more extensive treatment, gummata have become more rare and the so-called "new pathology" of syphilis is gaining in evidence. The symptoms now considered to be most dominant are: (1) perivascular inflammation, in which the walls of the arteries are weakened, thickened, reduced in elasticity and in the size of the lumen, reducing the blood supply and making possible an innumerable group of injuries; (2) a fibrotic infiltration of the interstitial tissues. The normal contraction of the fibrous tissue squeezes the nutrition and active power out of the parenchymatous cells, again presenting problems of differential diagnosis. The

serological tests are valuable aids in the determination of the secondary and tertiary phases.

In the quaternary stage the central nervous system is affected. When the posterior tracts of the spinal cord are degenerated, a condition of tabes dorsalis exists and the tabetic gait of locomotor ataxia is evident. Paresis brings about a general degeneration of the cortex and a typical insanity develops. The gold curve is a diagnostic test specific for paresis.

In the diagnosis of syphilis, as in any other disease, the assumption is best made by history and clinical signs; however, the serological tests are great aids and are extensively used for they are of sufficient accuracy to warrant confidence. Since their introduction, the diagnostic problems have been infinitely reduced, so that at the present the "Great Imitator" can seldom conceal its ravages from the alert and experienced eye of the physician nor from the exacting and precise methods of the scientific laboratory.

HISTORY OF THE TREATMENT OF SYPHILIS

When discussing the history of the treatment of syphilis it seems necessary to consider favorably the pre-Columbian origin of syphilis in Europe. As has been mentioned before, there are early Egyptian and Assyrian inscriptions dating back to near the dawn of history which seem to show that syphilis is an ancient disease. If syphilis is as ancient as historic man, then it is quite possible that it may have existed in Europe in an endemic form previous to the period of Western exploration. Treatment for it at this time may have been that used for some other obscure disease. As a result of the great increase of geographic movement during the exploration period it may have assumed epidemic proportions.

Probably the first record of the use of an anti-luetic drug was in the writing of one Huang Ti who recognized, some 3,000 years ago, the value of arsenic in diseases of the type which we now know are a result of protozoan infection. It is not known whether this venerable Chinese physician employed arsenic in skin diseases which might have been syphilitic.

Mercurial inunctions were used with much benefit by Arabian physicians beginning about 1000 A. D. These mercurials were used in chronic skin diseases with dosages "pushed to intensive salivation, to 'depurate the humors'." It is believed that those skin diseases which responded to treatment by mercury inunction were in reality syphilitic in origin and which had not been differentiated from leprosy, smallpox, and other eruptive diseases. Use of mercury in this manner became widely known through the "Canon" of Avicenna which was a popular medieval text-book.

Returning again to the Chinese, history records that the unexpectedly large Chinese materia medica included not only arsenic but mercury as well. This latter drug was to be used by inunction and fumigation, probably in syphilis.

Sudhoff, we find, described two recipes in an old Italian manuscript at Copenhagen, dated 1465, which contained ingredients identical with those employed in the vegetable electuaries or "Krauterlatwegen" of the early German and Italian writers on syphilis. It is evident from the work of Sudhoff, as we have mentioned above, that medieval physicians were quite well supplied with mercurial prescriptions which were used against a group of chronic skin diseases, scabies grossa, variola grossa, scabies mala, böse Blattern, mal franzoso, and grosse vérole, which were probably syphilitic.

Thus it was that mercury became a routine remedy and its introduction as "the inunction cure" and "sweating cure" was, Sudhoff believes, the very beginning of curative treatment in hospitals.

The Renaissance brought little more than modification of methods in the treatment of syphilis. In 1500, Mattioli treated his syphilitic patients by the internal use of mercury. Paracelsus, in 1553, furthered the use of mercury by writing a manual giving directions for the use of mercurials in syphilis.

Although mercury, used both internally and externally, was the most widely used remedy in treating syphilis during the Renaissance, the discovery of America brought guaiac, the root of "clina smilax," which was exploited by Vesalius in 1525. Sarsaparilla (1536) and sassafras were also tried in treatment. We find, in 1552, guaiac used internally and mercury externally were recommended by Thierry de Hery.

With the advent of the seventeenth century, syphilis had ceased to be epidemic. In direct relation to this decreased malignant activity of the disease was the achievement of the men of that century in the treatment of the former plague. The standard treatment for syphilis, as practiced by the barber surgeons, was inunction and fumigation with mercury.

In the eighteenth century we find that the treatment of syphilis once more began to undergo the slow evolution which marks medical progress. Gerhard van Swieten of the "old Vienna school" (1700-1772) advocated, with some success, the internal use of corrosive sublimate in antisyphilitic therapy. Although the medicinal use of bismuth is said to have dated from 1785, Garrison believes that Zedler, in 1733, employed bismuth in salves, and that in 1739 Percival Pott recommended the external use of bismuth.

It might be mentioned that 1785 was an important year in that during its span John Hunter discovered collateral circulation and, as a result, introduced proximal ligation in aneurysm. At this time, Fowler introduced potassium arsenite which has borne his name on its solution to this day.

The birth of an era replete with research and achievement, not only in the treatment of syphilis but in the knowledge of the disease as an entity as well, was ushered in by the year 1800. Two years later, in 1802, Odier of Geneva employed bismuth internally in the treatment of syphilis. Mercury

sulphate and calomel and liquor arsenicalis were included in the British Pharmacopeia of 1809. In 1825, James Copland used potassium iodide in luetic therapy, and in 1836 Wallace and Ricord, working independently, verified the value of iodine therapy in syphilis.

Philippe Ricord (1799-1889), an American born graduate of the Paris Faculty, was the greatest authority on venereal disease after John Hunter. It was Ricord who was called by Oliver Wendell Holmes, "the Voltaire of pelvic literature, who would have subjected Diana to treatment with his mineral specifics and ordered a course of blue pills for the vestal virgins."

It was during this century that it was observed that the American Indian had several antiluetic preparations of which at least one was known to be effective. Among the remedies listed by Stone, Yerba Mansa (*anemiopeus californica*) was used with benefit in the form of a decoction of the root by the Maricopa and Pima tribes. This drug, which has never been investigated scientifically, was reputed to be effective by white physicians who saw it used on syphilitic individuals in the latter half of the nineteenth century.

Guido Baccelli introduced the injection method of administering mercury in 1894 and in 1896 he treated aortic aneurysm surgically. These arterial walls, weakened so frequently by the as yet undiscovered *Treponema pallidum*, he strengthened by means of metal reinforcement. In the twentieth century or "modern period," Paul Ehrlich is of primary significance. Basing his thought on Kekule's hypothesis of the closed benzene ring, Ehrlich brought forth his well known side chain theory of protoplasmic nutrition, immunity, disease, and death which has proven to be a valuable factor in the study and development of the science of immunity and serum reactions.

Ehrlich reasoned that sterilization of the patient's body of the recently discovered organism of Schaudinn, without injury to the patient's body, was necessary. He did not believe that antibody reaction could occur with *Treponema pallidum* for an antigen.

From this premise he set out to discover a dye which would kill or prevent the reproduction of the spirochetes. As he progressed, he found that in the treatment of trypanosomiasis in mice with his "specific" dyes, a dye resistant race of trypanosomes was produced in the bodies of infected mice. This function of the law of selection, or survival of the fittest, was the weakest part of his final product "606," salvarsan. In spite of this weak point of salvarsan, and its later modification "914," or neo-salvarsan, it has proved to be the most valuable "specific" in treatment of *Treponema pallidum* infections, however they may be manifested. These organic arsenicals are splendid prophylactic agents in that they rapidly clean up syphilitic lesions and sterilize the blood stream, thus making the patient relatively non-infectious.

The brilliant work that accounted for the breath taking developments in the knowledge and treatment of syphilis in the first part of the twentieth century was started when, in 1905, Schaudinn discovered *Treponema pallidum* to be the etiologic agent of syphilis. The following year, 1906, Wassermann introduced the test which we have previously described, and Neisser showed the susceptibility of the apes to lues. These advances were, of course, climaxed in 1910 when Ehrlich and Hata introduced salvarsan.

In 1903 Metchnikoff and Roux demonstrated the value of calomel ointment inunction in prophylaxis shortly after they had succeeded in transmitting lues to monkeys.

The drug of choice today used to produce quick clinical and serological relief of symptoms with a minimum of relapses and drug reactions is still arsphenamine or "606." This drug is advantageous to the patient not only as regards relief but also relative to comfort and economy. Arsphenamine requires smaller amounts of the drug as well as fewer injections.

Neosarsphenamine is widely used and is, of course, a very good drug for this purpose. Its simplicity of administration is a recommendation for its use. Silver arsphenamine has not yet been fully investigated. With regard to the adjunctive use of bismuth or mercury, there seems to be little or no difference in their efficacy.

Tryparsamide and malaria therapy are reported to be best suited for the treatment of cases of neurosyphilis.

Newsholme states: "It is clear . . . that on its scientific side, syphilis is entirely controllable because of the following known facts:

- "(a) Existence of disease, when obscure clinically, can be recognized by detection of the spirochaetes, and later by the Wassermann reaction.
- "(b) The phenomena of the disease can be suppressed, even if sometimes not all of the spirochaetes in the system are killed by specific treatment.
- "(c) The local application of a preparation containing 30 per cent of calomel within one hour of exposure to infection suffices, in most instances, to prevent the spirochaetes from entering the system."

Although the above mentioned factors permit the control of syphilis, there is yet much to be done. It would be well if the treatment time could be shortened. Treatment technic has much room for improvement and simplification. The dangerous side actions should be eliminated from the antiluetic group of drugs. Reduction in expense in order to make good treatment available to all is desirable. That which would, of course, be ideal—immunization or some other fool-proof preventative technique—is still to be desired, and yet to be achieved.

FUTURE

The public recognition of syphilis as a specific disease occurred at a time when sexual promiscuity was hardly limited, and attention was fixed on the moral aspects of the disease. A little later, with the burial of sex education under a heap of prudery and tabu, went the possibilities for control of this pestilence. Although this state of affairs prevented people from dealing openly with the disease, it must be said in all fairness that moral inhibitions have prevented more cases than it is possible to estimate. To contract the disease was a shining badge of poor judgment and moral lassitude which the unfortunate victims were not able to conceal.

Today, of course, these limitations still exist, though to be sure in a modified and somewhat lessened degree. But they present probably the biggest barrier in the problem of control of the disease. Even now there are physicians and health officers who hesitate to deal with such "contamination," and educators are sometimes horrified that the problem of venereal disease should be frankly discussed. School teachers think the disease is invariably transmitted through a long line of progeny, and they often show abnormal fear in even approaching the question. Employers have been known to "bear down on bad blood" in the ranks of their personnel. But just as "consumption" and cancer were formerly not openly discussed, it is hoped the control program for syphilis will be elevated to the place it deserves in the minds of a progressive race.

Two men have recently shown admirable and aggressive energy in their efforts to make the general public of the United States "syphilis-conscious" and susceptible to the mobilization of anti-syphilitic forces in this country. Surgeon General Thomas Parran, of the United States Public Health Service, and Dr. William Freeman Snow, director of the American Social Hygiene Association, have begun a most energetic campaign to cure the six and one-half million (6,500,000) syphilitics of the United States. And the public reactions to the measures incurred in this campaign have been both surprising and enlightening. There is little doubt that public opinion will support any program which promises eradication. There is, further, little doubt, as we shall see later, that these programs will be successful.

The above statements receive added support through the Institute of Public Opinion, which asked in May, 1937: Should Congress appropriate twenty-five million dollars (\$25,000,000) to help control venereal disease? Four out of five (79%) voted "yes." Later the question was put: Would you be in favor of a Government Bureau that would distribute information concerning venereal disease? Now 90 per cent of the votes collected from all parts of the United States were "yes," so this is the attitude in the United States.

What of other countries? In Denmark, Wassermannization of all pregnant women, regardless of

social status, is compulsory, is done as routine, and is accepted by the people as a further responsibility incurred by the ushering of a new citizen into their midst. The success of this program, and those of England and Sweden, is by now almost proverbial among those "in the know," but it is hardly a matter yet of common knowledge. The incidence of syphilis last year in Denmark, for example, was below .000025 per cent of the total population. Much of this success depends upon the compactness of the countries and, as has been pointed out, the methods used there may not be applicable at all in the United States, because of the extreme diverseness and the wide distribution of our population. It is not, however, hard to guess the attitude of these peoples toward syphilis. In Sweden it is a legally punishable crime to allow a case to go untreated. So in this country, as we shall soon see, provision is gradually being made for the compulsory reporting, through the police powers of health officers, by medical men, employers, etc., of cases under their jurisdiction.

To get an idea of the situation facing medical men in this country, very comprehensive surveys have been made along this line of the incidence and distribution of syphilis and the way in which these cases are being handled. These estimates vary, of course, due largely to the lack of any accurate way of reporting cases. Indeed, the great majority go unreported, and every effort at secrecy is made both by the physicians and their patients. Boards of Health, however, do get some idea of the number of cases specifically calling for the Wassermann, Kline, Kahn, and other tests.

The Metropolitan Life Insurance Company, through its actuarial department, places the number of active cases in the United States at 6,300,000. Surgeon-General Thomas Parran estimates 6,500,000 and others carry the figure up to 12,000,000 or about one out of ten. On the authority of Dr. Alfred Potter, of King's County Hospital, there are 10,000,000 cases.

To be a little more specific, Indiana has a population of 3,000,000. If 10 per cent of the people are infected, there are about 300,000 cases in Indiana and about 37,200 cases in Indianapolis.

The distribution of these cases in the various walks of life is fairly well differentiated. The following table, prepared by the American Social Hygiene Association, and reprinted from the *Journal of the Indiana Medical Association*, Vol. 30, No. 3, is instructive:

Occupation	Incidence of Syphilis
Barbers	13.0%
Railroad Employees	11.7%
Laborers, Unemployed	8.4%
Laborers, Employed	6.1%
Rural Populations	5.1%
Milk Handlers	4.0%
Skilled, Semi-skilled, Clerical	3.5%
Merchants, Tradesmen	3.2%

The city of Newark, New Jersey, is one city, and we think the only one at present, to require all domestic servants to undergo physical examinations before employment is given. During 1935 the positive incidence is given of 17.2% in this group.

Only last year the University of Minnesota gave compulsory tests to the student body of 7,000, and found six persons who responded positively.

Among Negroes it is estimated that one out of three, in some communities, have syphilis, and while this figure may seem to be too high, the estimates have been repeatedly confirmed among the Negroes of the South.

There are 518,000 persons in the United States who yearly seek treatment for incipient syphilis, and a million more receive first treatment for advanced syphilis. *Only one case in ten ever receives any recognized treatment at all.* In 1934 it was estimated that there were 550,000 new cases. Compare this number with 100,000 fatal auto accidents over the same period.

As to the kind of treatment cases of syphilis receive in this country, too much may be inaccurately said. It is known that 60% of the cases receiving recognized treatment are in the hands of self-educated semi-specialists in venereology as distinguished from syphilologists. Thirty per cent of this group are in the hands of inadequately trained medical men, and as has been said, the great majority of cases do not receive recognized treatment. It seems significant that a lower "threshold of suspicion" is needed among medical men in the detection of syphilis.

Dr. Max A. Bahr has stated in a recently issued book on state hospitals: ". . . about 25% of cases in state hospitals are due to syphilis and it costs the tax-payers of Indiana over one-half million dollars annually to treat, care for, and maintain its syphilitic patients. This amount is appalling when you consider that syphilis is an acquired disease and can be entirely prevented."

While the problem is at present chiefly in the hands of the medical profession, it is evident that its solution lies in the hearty cooperation of each and every member of society. Thereby hangs the tale, for it is only through the expert and conjoined efforts of medical men as the controlling factor in any anti-syphilitic program that the general public will ever understand the part played by each individual in eradicating the disease. Enormous suffering has already come through prudish ignorance, and physicians owe their patients the security that lies in the knowledge they possess as a profession.

As has been aptly said, however, "Physicians have no monopoly on the brains that are applying themselves to human health and welfare." The means of execution is a problem to be laid at the doors of health officers and the men and women engaged in public communications as well.

It is upon the above principles that the programs today under way in their initial phases are based.

Before setting forth the Indiana program as representative of the group, it might be well to look over a few of the things that have already been accomplished.

The following facts have been definitely established since the time that the New York State Commissioner of Health was put off the air because he attempted to discuss syphilis over a national radio broadcasting network.

- (1) Control is possible on early diagnosis of cases.
- (2) Enormous numbers of people are infected congenitally and by acquisition.
- (3) Innocent infections are avoidable.
- (4) Congenital syphilis is inexcusable.
- (5) The first step is the education of medical students.

To date, Dr. Parran and Dr. Snow have the following results to show for their efforts in this campaign:

- (1) New laws requiring both applicants for a marriage license to show medical certificates that they are free from syphilis have gone into effect in Illinois, Michigan, and Wisconsin. A similar New Hampshire law is going into effect this year.

Connecticut has had such a law since 1935. New York, New Jersey, Kentucky, and Oregon legislatures have similar bills under consideration. The New York City Department of Health is aiding physicians to detect the city's 378,000 cases of syphilis through free serological tests, dark field examinations, and diagnostic consultations. From social security funds neosalvarsan, bismuth, and mercury are supplied free for those who cannot pay. Every effort is made to locate sources of infection. Adequate reporting systems are also provided for if the physician will cooperate.

- (2) The organization of an American Academy of Dermatology and Syphilology.

- (3) The Intercollegiate Newspaper Association undertook to spread the propaganda to all United States students, and soon every student in the 144 United States colleges is to have a blood test.

- (4) Harvard's School of Public Health organized a post-graduate course on venereal disease control for health officers and private physicians.

- (5) Billboard posters (2,000) went up all over the country.

- (6) Every doctor of Ingham County, Michigan, is making a blood test of literally every patient he sees.

- (7) The American Institute of Public Opinion established by survey that the majority of United States residents interviewed are in favor of Federal clinics for the treatment of venereal disease.

- (8) Physicians over the United States are responding to the encouragement they receive to install facilities for doing blood tests.

- (9) The adoption by several states of Parran's program for the eradication of syphilis.

The Indiana profession was among the first to endorse the surgeon-general's program, and also to issue a special number of its official magazine devoted to the cause. Quoting from the October (1937) issue of *The Journal Indiana Medical Association*, an idea may be had of the up-to-date status of syphilis:

"For some time we were concerned lest we be a laggard in adopting a definite program, but our fears are allayed. We have a program, well planned, which can and will be carried to a definite, purposeful conclusion. Our Association committee is working on a plan that ultimately will be quite satisfactory, a program that will not only carry the message to every corner of the state but will point the way to the successful completion of that program. Not content with a simple analysis of the syphilitic situation in Indiana, this committee proposes to do something about it. The laboratory facilities of the state are being sought out in an effort to determine just what laboratories are prepared to do Wassermanns, Kahns, etc. They want to know, and they will find out, what the facilities in Indiana are for dark field examinations and, finally, they will ask the medical profession of Indiana how well prepared it is to treat this disease. . . . Syphilis is on the way out of Indiana. The question of syphilis is being attacked in an orderly, intelligent manner which we confidently believe will result in completely conquering the disease."

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SULFANILAMIDE AND ITS RELATED COMPOUNDS

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First reported by Domagk in 1935,¹ no drug in recent medical history has attained more spectacular publicity and more rapid widespread usage than has para-amino benzene sulfonamide. Announced as an agent of benefit in the treatment of experimental streptococcic infections, the drug and its related compounds have swept the medical world.

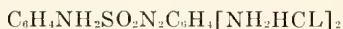
Unfortunately the drug was released without adequate experimental and clinical data and as a result much confusion has arisen in the minds of the profession as to the true value of sulfanilamide, the indications, contra-indications and dangers that may arise from its use.

Because of the newness of the drug and the lack of reliable clinical information regarding it, many men have used it without proper knowledge of its properties.

The first point to be noted in a study of this drug and its related compounds is their chemical structure. The most commonly used is sulfanilamide (accepted by the A. M. A. Council on Pharmacy and Chemistry), a white powder, which has been mentioned in the literature under the names of p-aminosulfamido-benzene, Prontosil Album and Prontylin. It has the following structural formula:



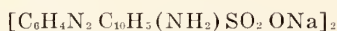
Next is 4 sulfamido, 2', 4' diamino azo benzene dihydrochloride, which has appeared most often in the literature under the name of Prontosil. It has also appeared as Prontosil Flavum, Prontosil tablets and as Rubiazol. It is a yellow dye and has the following chemical structure:



Also active as a chemotherapeutic agent is 4-sulfamido-benzene 2' azo, 1' hydroxy 7' acetylaminonaphthlene 3', 6' disodium sulfonate. This substance is a red dye and has appeared in various articles under the names of Prontosil, Prontosil Red, Prontosil Soluble, Prontosil Solution and Prontosil S. This dye has the following structural formula:



Recently the author has reported the use of Congo Red,² which is the sodium salt of diphenyldiazo-binaphthionic acid, as still another chemotherapeutic agent of value in the treatment of certain infections. Congo Red is a red dye which has the formula:



Close study of the structures of these dyes shows that, with the exception of Congo Red, all have a common SO_2NH_2 group which is linked to a benzene ring. In Congo Red, which has been proved to be non-toxic in doses up to 300 mgms. per kilogram of body weight, the NH_2 is replaced by an ONa.

The properties of benzene and sulphur are well known and may well account for some of the toxic manifestations which have been reported following the use of these dyes, especially sulfanilamide.

Indications and contraindications for the use of these agents are largely dependent upon the clinical acumen of the physician. They are not cure-alls and are not to be given indiscriminately regardless of the type of infection present.

The dyes have been found to be most effective against streptococcus but reports of their use against other organisms, namely the gram negative cocci, are numerous. Dees and Colston³ have reported a lengthy series of cases of remarkable results in specific urethritis.

Weyerbacher⁴ and his associates working in the dispensary clinic at the Indianapolis City Hospital have been unable to confirm this report, however. They find that while the discharge in specific anterior urethritis disappears within a few days (3 to 5) they are still able by careful searching to obtain positive smears from the urethra, thus demonstrating the continued presence of the organism even after the case appears to be cured.

This is but one of the many instances where careful investigators have been unable to confirm some of the early glowing reports concerning sulfanilamide. The current literature is filled with reports of the successful use of these dyes but recently reports of many untoward results are being made. It is with the latter that the profession is chiefly concerned at the present time.

While it has been definitely proved that diethylene glycol was the offending agent in the tragic results following the use of Elixir of Sulfanilamide, still those results have served to bring members of the profession to the realization that many of the facts concerning the properties of sulfanilamide are yet to be discovered.

In this regard the A. M. A. Chemical Laboratory,⁵ in a special article, says in part, "While sulfanilamide does not appear to have any appreciable part in the toxicity of this preparation (Elixir of Sulfanilamide-Massengill) it is well to

1 Domagk, G.: Ein Beitrag zur Chemotherapie der bakteriellen Infektionen, *Deutsche med. Wchnschr.* 61:250-253 (Feb. 15) 1935.

2 Green, W. L.: Congo Red in the Treatment of Certain Infections. *Journal Ind. State Med. Assn.* 30:527-529 (Oct.) 1937.

3 Dees, J. E., and Colston, J. A. C.: The Use of Sulfanilamide in Gonococcal Infections. *J. A. M. A.* 108: 1855-1858 (May 29) 1937.

4 Weyerbacher, A. F.: Personal Communication.

5 A. M. A. Chemical Lab.: Elixir of Sulfanilamide-Massengill: 11; *J. A. M. A.* 109:1724-1725 (Nov. 20) 1937.

emphasize again that sulfanilamide should be used cautiously and until more is known of its pharmacology, should not be administered concurrently with any other substance except sodium bicarbonate."

Very little indeed is known about the action of the drug, and in a recent paper Long and Bliss,⁶ after careful study, are forced to conclude that the mode of action of sulfanilamide is still a mystery. In my own paper² the theory was proposed that the activity of Congo Red is due to its electro-negative properties and that invading bacteria carrying positive charges are electrically rendered harmless. This is as yet purely a theory and has no definite proof.

In a personal communication, Dr. Martin Fischer, of the University of Cincinnati Medical College, says that in his opinion the mode of action of the drugs is that of a general protoplasmic poison.

Regardless of what its mode of action may be, the point of chief concern for physicians is the fact that sulfanilamide is definitely toxic in large doses, and in many patients even small doses will bring untoward reactions.

Signs of overdosage or intolerance to the drug may take the form of dizziness, anorexia, nausea and vomiting and commonly a cyanosis which may vary from a slight discoloration of the lips to a rather intense general cyanosis. Fortunately the symptoms of intolerance are nearly always relieved within a few hours if sulfanilamide is discontinued.

A review of the literature shows that the following ill effects have already been reported following

⁶ Long, P. H., and Bliss, E. A.: Observations on the Mode of Action of Sulfanilamide. *J. A. M. A.* 109: 1524-1527 (Nov. 6) 1937.

the use of sulfanilamide in the various types of cases and in varied dosages: agranulocytosis (fatal),⁷ acute hemolytic anemia,⁸ sulfhemoglobinemia and methemoglobinemia,⁹ acidosis,¹⁰ toxic optic neuritis¹¹ and dermatitis of various forms.¹²

Whether there are still further harmful effects which will make their appearance in later years, as in the case of dinitrophenol, remains to be seen.

SUMMARY

1. Only the first chapter in the story of sulfanilamide and its related compounds has been written.

2. Until more is known of the pharmacology of sulfanilamide it must be regarded as a dangerous drug and its use undertaken only if the physician is fully aware of its potential harmful effects.

3. It is theoretically possible that these compounds may act by neutralizing the electrical charge carried by the invading bacteria.

⁷ Borst, J. G. G.: Death from Agranulocytosis after Treatment with Prontosil Flavum, *Lancet* 1:1519-1520 (June 26) 1937.

⁸ Harvey, A. M., and Janeway, C. A.: The Development of Acute Hemolytic Anemia During the Administration of Sulfanilamide (Para-Aminobenzenesulfonamide) *J. A. M. A.* 109:12-16 (July 3) 1937.

⁹ Paton, J. P. J., and Eaton, J. C.: Sulfhemoglobinemia and Methemoglobinemia Following Administration of p-aminobenzenesulfonamide, *Lancet* 1:1159-1162 (May 15) 1937.

¹⁰ Southworth, H.: Acidosis Associated with the Administration of Para-Aminobenzenesulfonamide (Prontylin), *Proc. Soc. Exper. Biol. & Med.* 36:56-61 (Feb.) 1937.

¹¹ Bucy, Paul C.: Toxic Optic Neuritis Resulting from Sulfanilamide.

¹² Menville, J. G., and Archinard, J. J.: Skin Eruptions in Patients Receiving Sulfanilamide, *J. A. M. A.* 109: 1008-1009 (Sept. 25) 1937.

ABSTRACT: MEDICAL ASPECTS OF SURGICAL TREATMENT OF HYPERTENSION

Resection of the anterior spinal nerve roots and resection of the splanchnic nerves appear to IRVINE H. PAGE, Indianapolis (*Journal A. M. A.*, April 9, 1938), to be the two operations among the many advised for the surgical treatment of hypertension that have some value. The best clinical results from resection of the anterior spinal nerve roots have been obtained in two groups of patients: relatively young persons with essential hypertension, who exhibited signs and symptoms of the "hypertensive diencephalic syndrome," and patients with malignant hypertension. Older patients suffering from hypertension of long standing do not appear to have been benefited by this operation. The effects of operation on malignant hypertension appear to be without parallel in medical treatment. The majority of patients with essential hypertension can still be treated best by medical means. However, operation may be desirable in the early stages of malignant hypertension and for young patients exhibiting the "hypertensive diencephalic syndrome." Opposed to the good results that have been achieved are the accidents which occurred in three cases. Two of these could probably have been avoided and are not likely to happen again, while the third, the occurrence of transverse myelitis, still remains a serious hazard. Consequently, if an operation that is less difficult and danger-

ous is devised which offers equal results in selected cases, it will doubtless find a place in the therapeutics of hypertension. Perhaps Adson and Allen's new operation is a step in this direction. The operation of supra-diaphragmatic splanchnic nerve resection combined with removal of the lower thoracic sympathetic ganglions has been practiced extensively in this country. The operation is a much less drastic one than section of the anterior spinal nerve roots, and there has been no operative mortality or serious complications. In some of the patients the operation was performed on one side and a week or more later on the other, while in others it was carried out in one stage. During the operation and for days or weeks afterward the arterial pressure was markedly reduced without significant change in renal efficiency. But within nine months the pressure had returned in all cases (nine) to, or close to, the preoperative level. While resection of the splanchnic nerves produces many of the effects that are observed after section of the anterior roots, they are often more transient. Surgical methods which are designed to aid in the treatment of hypertension are still in the experimental stage. The operations which are now employed are probably far from the best, but it is becoming clearer what may be expected from the two operations.

INFECTIOUS MONONUCLEOSIS *

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A great deal of evidence suggests that infectious mononucleosis is a rather common condition and yet its recognition in private practice does not seem to be very frequent. This may partly be due to its relatively benign course, so that the condition is considered as a "common cold," influenza, etc.; on the other hand, the unusually varying clinical manifestations of infectious mononucleosis may closely simulate many other conditions rendering the differential diagnosis difficult. The fact that infectious mononucleosis has been most frequently reported from hospitals and clinics and that it has been frequently found in persons connected with medical institutions (nurses, internes, students, hospital employees), in whom a blood examination is done routinely, illustrates the importance of the laboratory means for its diagnosis.

In 1898, E. Pfeiffer¹ described a new clinical entity which he called "Drüsenfieber" (glandular fever). His observations have been fully confirmed and since then many epidemics of glandular fever have been reported. In 1920, Sprunt and Evans² described six cases of a peculiar mononuclear reaction of blood to an acute infection and introduced the term "infectious mononucleosis." Their cases appeared in many respects identical with those previously described as glandular fever and these disease entities are now generally regarded as identical. Other synonyms are: benign lymphadenosis, acute benign lymphoblastosis, monocytic angina, angina with lymphoid reaction and others. In 1922 and 1923, Longscope,³ Tidy and Daniel,⁴ and Downey and McKinley⁵ described the characteristic blood changes in infectious mononucleosis and glandular fever. Their studies simulated further interest in this condition and another step in the recognition of infectious mononucleosis was laid down in 1932 when Paul and Bunnell⁶ found that the blood serum of persons suffering from infectious mononucleosis was able to clump red blood cells of the sheep even in high dilutions.

CLINICAL PICTURE

The clinical picture is unusually varying, and it is difficult to outline briefly the possible onset and course. Three main types are frequently distinguished: (1) Glandular type; (2) Anginose type; (3) Febrile type.

Most of the cases do not permit such a clear separation but it is useful to keep in mind these three possible types. While the marked enlargement of lymph nodes forms the dominating feature of the first group, the adenopathy is found in practically every instance of infectious mononucleosis. The cervical, axillary and inguinal lymph nodes are the ones most commonly affected in the order named. Also the involvement of the throat is usually present but it may be a late symptom or be so slight and insignificant that it does not form a complaint on the part of the patient. On the other hand, in the anginose type the throat infection may be very severe and simulate diphtheria. In fact, the most typical feature of this type is the presence of a membrane on or near the tonsils clinically closely resembling that of diphtheria (see our case I). The febrile type is the one presenting the greatest diagnostic difficulties. It is usually characterized by sudden onset with rise of temperature, severe headaches and general malaise. While the appearance of a rash is not infrequent in the course of infectious mononucleosis, it is most frequently a feature of this febrile type. The eruption is either macular or papular with rather small discrete pinkish spots. In young children the eruption may closely resemble that occurring in rubella. The stage of eruption, if present, is usually a transient one and rapidly disappears.

McKinley⁷ in analyzing fifty cases of infectious mononucleosis distinguished the following four conditions which may represent the onset of the disease: (1) Angina or infection of the upper respiratory tract, 54% of cases. (2) Systemic febrile reaction, 20%. (3) Abdominal symptoms, 16%. (4) Adenopathy, 10%. The possibility that infectious mononucleosis may produce abdominal symptoms must be borne in mind as it may simulate acute appendicitis. Every surgeon will recall cases where appendectomy, even as an emergency measure, was performed and on gross or microscopic examination of the appendix no other lesion found than lymphatic hyperplasia. Possibly the mesenteric lymph nodes were found enlarged at operative inspection. We have no possibility of determining how many of these cases were actually cases of infectious mononucleosis with abdominal symptoms. Frequently the patients complain of pain or sore

* From the laboratories of the Associated Physicians and Surgeons' Clinic and Union Hospital, Terre Haute.

¹ Pfeiffer, E.: Drüsenfieber. *Jahrb. f. Kinderh.* 29: 257-264, 1889.

² Sprunt, T. P. and Evans, F. A.: Mononuclear leukocytosis in reaction to acute infections. *Bull. Johns Hopkins Hosp.* 31:410-417, 1920.

³ Longscope, W. T.: Infectious Mononucleosis (glandular fever) with a report of ten cases. *Am. Journ. Med. Sciences* 164:781-808, 1922.

⁴ Tidy, H. L. and Daniel, E. C.: Glandular fever and infective mononucleosis. *Lancet*, 205:9-13, 1923.

⁵ Downey, H. and C. A. McKinley: Acute lymphadenosis compared with acute lymphatic leukemia. *Arch. Int. Med.* 32:82, 1923.

⁶ Paul, J. R. and Bunnell, W. W.: The presence of heterophilic antibodies in infectious mononucleosis. *Am. Jour. Med. Sciences* 183:90, 1932.

⁷ McKinley, C. A.: Clinical aspects of infectious mononucleosis. *J. A. M. A.* 105:761, 1935.

feeling in the upper abdominal quadrant due to a transient enlargement of the liver or spleen.

DIFFERENTIAL DIAGNOSIS

The list of diseases included in the differential diagnostic considerations is very long. In the group with a general febrile onset or reaction, acute leukemia, typhoid, paratyphoid, undulant fevers, tularemia, acute miliary tuberculosis, meningitis, acute exanthemata and many other conditions must be excluded. In our experience a febrile type may clinically simulate typhoid fever and even present some hematologic difficulties (see case II). The differentiation from acute leukemia is particularly important. Cases with anginose onset may simulate diphtheria, Vincent's angina, follicular tonsillitis, agranulocytic angina, non-specific upper respiratory infections and others. Cases with prominent and persistent glandular enlargement are to be differentiated from non-specific and tuberculous adenitis, Hodgkin's lymphogranuloma, syphilis, chronic leukemia and neoplastic diseases of the lymphatic system. If mesenteric lymph nodes are involved, acute abdominal conditions, such as appendicitis, are usually thought of at first.

The importance of correct recognition of infectious mononucleosis becomes evident by the fact that many of the conditions included in the diagnostic consideration are of serious or even fatal prognosis while the prognosis of infectious mononucleosis is absolutely favorable. By proper recognition many unnecessary therapeutic procedures can be avoided. As it is frequently impossible to make a definite diagnosis of infectious mononucleosis clinically, the differential diagnosis is largely based on the laboratory findings.

LABORATORY DIAGNOSIS

The diagnosis is based on the characteristic hematologic and serologic findings. The blood picture is essentially dominated by the following two changes:

1. Marked increase of lymphocytes and mononuclear cells, that which is called "mononucleosis."
2. Appearance of the so-called abnormal lymphocytes in the peripheral circulation. The lymphocytosis may be as high as 90-95%. But it should be borne in mind that in some cases the mononucleosis does not appear at first and that in the initial stage there may be even a considerable predominance of polymorphonuclear leukocytes. As far as the abnormal lymphocytes are concerned, their morphology cannot be discussed here. Briefly stated, the abnormal lymphocytes have a "leukocytoid" character and a tendency to develop into plasma cells. Both the nuclei and the cytoplasm are altered. The nuclei are frequently indented (kidney shaped, etc.) or eccentrically located and show a coarse chromatic structure with vacuoles. The cytoplasm is often deep blue. For more details the interested reader is referred to the original papers and the excellent presentation by Downey

and McKinley^{5, 8} to which little new can be added. The total white count may not be increased but usually there exists a moderate leukocytosis. White counts up to 40,000 have been reported. From our observation we would like to mention the possible transient occurrence of the leukopenia (white blood count of 2,400 in our case II). The erythropoietic system is not affected and the absence of any appreciable anemia is an important differential diagnostic point in excluding the more serious conditions such as acute leukemia and others.

While the blood changes in infectious mononucleosis are rather characteristic, they are not specific. While the characteristic blood cell is the abnormal and not immature lymphocyte, yet the occasional presence of large atypical cells with nucleoli may suggest the immature lymphoblasts of acute leukemia. Most hematologists agree that some cases may present unusual diagnostic difficulties. Furthermore it should be borne in mind that occasionally in the early stage of the disease the characteristic increase in mononuclear cells may still be absent. For all such instances the serologic test for establishing the diagnosis becomes invaluable.

SEROLOGIC FINDINGS

In 1929 Paul and Bunnell⁶ found that the blood serum of patients suffering from infectious mononucleosis contains antibodies (agglutinins) which are able to agglutinate the red blood cells of the sheep, even in high dilutions. Previously, Davidsohn⁹ established the same fact for the blood serum of persons suffering from serum sickness. Such antibodies are called "heterophilic" and the term refers to the ability to react with antigens that have apparently nothing to do with the production of these antibodies. The antigen (in this instance the red blood cell of the sheep) is known as heterophilic antigen. The serologic test for infectious mononucleosis is exactly the titration for the presence of heterophilic antibodies. Most normal sera are able to clump sheep red cells but only in very low dilutions. The titer may rise considerably following injection of horse serum and particularly during serum sickness (Davidsohn). Fortunately the heterophilic antibodies of infectious mononucleosis differ from those present in normal serum and serum sickness. As has been definitely proven by repeated studies^{10, 11, 12} these types of antibodies can be differentiated from each other by means of so-called absorption with different tissues. Boiled

⁵ Downey, H.: Infectious Mononucleosis. Part II. Hematologic studies. *J. A. M. A.* 105:764, 1935.

⁹ Davidsohn, I.: Heterophilic antibodies in serum sickness. *Jour. Immunol.* 16:259, 1929.

¹⁰ Bailey, G. H. and Raffel, S.: Hemolytic antibodies for sheep and ox erythrocytes in infectious mononucleosis. *Jour. Clin. Invest.* 14:228-244, 1935.

¹¹ Stuart, C. A.: Heterophile antibodies in infectious mononucleosis. *Proc. Soc. Exp. Biol. and Med.* 32: 861 863, 1935.

¹² Davidsohn, I. J.: Serologic diagnosis of infectious mononucleosis. *J. A. M. A.* 108:289, 1937. *M. A.* 108:289, 1937.

beef erythrocytes and guinea pig kidneys are most useful in this differentiation.

There are wide differences in the technic employed and the recording of the result of the agglutination and absorption tests. In our routine we follow the technic as presented and modified by Davidsohn.¹² It gives sensitive results and permits the reading within two hours. Whatever the technic employed, the results should be reported in terms of *final* dilution of serum in order to permit an intelligent comparison. An agglutination in final dilution of 1:56 or higher constitutes a positive reaction. For borderline titers (1:56 and 1:112) a differential absorption test is advisable. Also in all cases where there is a history of recent injection of horse serum or the patient is suffering from serum sickness.

While the positive result of the serologic test definitely establishes the diagnosis, the significance of the negative result is still an open question. Repeatedly cases have been observed—and I wish to confirm this observation—which clinically and hematologically closely simulate infectious mononucleosis and yet the test for heterophilic antibodies is negative. Whether it is justifiable or even desirable to separate these seronegative cases, appears questionable. The final solution of it can be brought only by future investigation regarding the etiology of infectious mononucleosis.

As far as other laboratory findings are concerned, none are of diagnostic significance. It has been reported that the Wassermann reaction may occasionally become transitorily positive in the course of infectious mononucleosis.

ETIOLOGY

At our present status of knowledge little is known regarding the etiology. Several microorganisms have been described as the causative agent but all these observations still lack in uniform confirmation. It seems likely that infectious mononucleosis is due to an infection with a virus which is the carrier of heterophilic antigen with a stimulating effect on the lymphocytic and a depressing effect on the granulocytic systems. The degree of infectivity considerably varies in different instances. Biopsies from enlarged lymph nodes do not reveal any specific changes. Usually there is a marked diffuse hyperplasia of the reticular endothelium. The benign course does not give any opportunities for more intensive pathologic studies.

PROGNOSIS

As already stated the prognosis is absolutely favorable with tendency to spontaneous recovery, but it is well to remember that the blood picture is not entirely characteristic and a case has been observed where a clinical picture suggestive of infectious mononucleosis with a total white count of 15,000 changed to a fatal agranulocytosis with a total white count of 800. Complications are relatively infrequent; occasionally an impairment of the kidney function is observed.

TREATMENT

As the etiology is still unknown, no specific treatment is available. Fortunately it is also unnecessary as the disease is self-limited and only requires symptomatic attention. Injections of serum should be avoided and the progress checked by repeated blood counts. Usually the clinical recovery corresponds to a marked drop or disappearance of the abnormal lymphocytes from the peripheral circulation.

CASE REPORTS

From our series of cases we have selected three which present some illustrative features.

Case I. Miss H. L. R., a white girl, 17 years old, was admitted to the Union Hospital on April 27, 1937, complaining of sore throat and fever and marked sweating of about four weeks duration. Three days before hospitalization a greyish membrane was found on the right tonsil which slowly spread to the left side. A culture and smear of throat were reported as positive for streptococci, Vincent's organism and questionable diphtheria bacilli. In view of these findings the patient received forty thousand units of diphtheria antitoxin followed in five days by another five thousand units. No improvement was noted. The patient then received a transfusion of 400 c.c. of citrated blood. When seen in consultation on April 29, the patient appeared to be very ill. The temperature was 104.3, pulse rate 118, and respiration rate 30 per minute. Physical examination revealed a slender young girl. The cervical lymph nodes were definitely enlarged. The pharynx was markedly injected and the left tonsil was covered with a greyish-yellow membrane. The right tonsil contained some purulent exudate. The liver was tender over the rib margin. The spleen was just palpable. The blood examination revealed: Hemoglobin, 86% (13.76 Gm.); Red blood count, 3,880,000; white blood count, 13,850 per c.mm. The differential count showed, 71% lymphocytes and 3% monocytes. Of the lymphocytes 24% were abnormal and a few of them resembled large immature lymphoblasts. Throat culture on two occasions showed no evidence of Klebs-Loeffler bacilli. The blood culture remained sterile. Infectious mononucleosis was considered as the most likely diagnosis but in view of the very serious clinical picture and the presence of some immature cells in the blood smears, the possibility of acute lymphatic leukemia could not be overlooked. The test for heterophilic antibodies was then carried out and proved to be positive in a dilution of 1:1792. The history of recent horse serum administration made it necessary to carry out the differential test which was also positive for infectious mononucleosis. Thus the diagnosis was definitely established and the prognosis given as absolutely favorable. In further clinical course the liver and spleen became definitely palpable, palpable lymph nodes also appeared in the left axilla and the inguinal region. A transient macular eruption appeared on the left arm and disappeared in 24 hours. On the

HEMATOLOGIC AND SEROLOGIC FINDINGS IN CASE I

	4/27*	4/29*	4/30	5/3*	5/7	5/9	5/11	6/17	8/29
White cell count (per c. mm.)	9,700	13,850	8,350	4,300	8,150	8,600	8,000	7,800	6,450
Differential count (per cent)									
Metamyelocytes		2							
Bandforms	11	12	13	14	18	20	14	7	4
Polymorphonuclears	5	12	18	24	32	34	42	54	59
Lymphocytes, Normal (large and small)	55	47	45	30	40	36	39	36	35
Abnormal lymphocytes	27	24	19	27	8	6	2	1	----
Monocytes	2	3	5	5	2	4	3	2	2
Mononuclear cells (lymphocytes + monocytes)	84%	74%	69%	62%	50%	46%	44%	39%	37%
Hemoglobin (in Gm. per 100 cc.)	10.24	13.76	12.96	13.76	13.28	13.92	13.92	14.35	14.79
Red Cell count (in Mill. per c.mm.)	3.56	3.88	3.46	4.19	4.50	4.42	4.49	4.32	4.59
Test for heterophilic antibodies (titer in final dilution)	----	1:1792	----	----	----	1:896	----	1:224	1:28

* Counts following blood transfusion.

twelfth day following the first administration of diphtheria antitoxin, the patient developed a severe itching over the entire body with an urticaria-like eruption. This serum sickness passed in 3 days. The patient made an uneventful recovery and left the hospital on the fifteenth day after admission. She remained under observation and on subsequent visits was found to be enjoying perfect health. For exact hematologic and serologic findings, see the table.

Case II. Mr. J. S., a white male farmer, 38 years of age, came to the Clinic of Associated Physicians and Surgeons on June 29, 1937, complaining of severe frontal headaches, fever, and night sweats. His past history was irrelevant and he always enjoyed good health. Two days preceding his visit he ate some home-made ice cream which was followed by nausea and two chills during the same evening. He had marked headaches and some low backaches. For the first two days his neck felt stiff. The bowel movements were regular. When seen at the Clinic his temperature was 101° and pulse rate 100. The urine showed a faint trace of albumin and many fine and occasional coarse granular casts. The blood count was as follows: Hemoglobin, 108% (Sahli-Klett) (15.66 Gm. per 100 c.c. of blood); red blood cells, 4,880,000. White blood cells, 6,900 per c.mm. The differential count was within normal limits. Repeated smears for malaria parasites were negative. Agglutination tests for undulant fever, typhoid, paratyphoid and tularemia were negative. Two days later the white cell count dropped to 2,150 per c.mm. with 56% lymphocytes, 24% monocytes and some abnormal forms. The possibility of typhoid fever was strongly considered but the negative blood cultures and the negative results of repeated Widal tests failed to confirm this diagnosis. Meanwhile there appeared a slight general glandular enlargement with a large palpable lymph node in the left inguinal region. Liver and spleen were not palpable. The patient now complained of sore throat (on the 9th day since onset of sickness). The white blood count rose to 10,950 with 85% lymphocytes, 29% of which were abnormal. The diagnosis of infectious mononucleosis was made and confirmed by the test for heterophilic antibodies which was positive in a titer of

1:448. The patient made a quick recovery and when seen on July 22, three weeks after the onset of sickness, the clinical symptoms, including glandular enlargement, disappeared, and the blood count revealed a lymphocytosis of 48% with only 3% of them being abnormal. The patient has remained well since.

Case III. Mr. J. H., a white male, 28 years of age, always enjoyed good health until the present illness which began with loss of appetite, weakness, and frontal headaches. The symptoms gradually increased in severity, the temperature gradually rose to 104°, and the patient confined himself to bed and consulted a physician. Physical examination revealed a well built, well nourished young man offering no particular complaints except for some soreness in the throat. A few post-auricular lymph nodes were moderately enlarged and a small node was palpable in the right cubital fossa. The examination of the throat showed a reddened pharynx with enlarged and cryptic tonsils and adenoids. The sinuses were clear. The blood count was as follows: Hemoglobin, 106% (Sahli-Klett) (15.37 Gm. per 100 c.c. of blood); red blood cells, 4,470,000; white blood cells, 10,550 per c.mm. The differential count showed 76% lymphocytes and 1% monocytes. Three days later the mononucleosis rose to 88%. Agglutination tests for undulant and typhoid fever were negative. The Kahn test for syphilis was negative. The urine showed no pathologic changes. The diagnosis of infectious mononucleosis was made and confirmed by the test for heterophilic antibodies which was positive in a dilution 1:896. The patient remained in bed for about two weeks and made an uneventful recovery. Four weeks from the onset of the sickness, the white blood count was 9,600 with 59% lymphocytes and 3% monocytes. Six weeks later the white blood count was 5,600 with 42% of lymphocytes. One per cent of them was still abnormal. The patient has remained well since.

SUMMARY

1. Infectious mononucleosis is a disease of rather frequent occurrence, but appears often to be unrecognized.

(Concluded on page 324)

ULTRA-VIOLET LIGHT AND CERTAIN DISEASES OF THE SKIN

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Since a large portion of the citizens of the State of Indiana are farmers, many are necessarily exposed to the sun's rays over a long period of time during the year. Hence, this is a problem of interest to us who are engaged in the practice of medicine. Each normal individual in the world knows at least some of the benefits derived from exposure of the body to ultra-violet rays; the same is true conversely.

Ultra-violet light is of undoubted value in the treatment of certain dermatoses, but assuredly not in the treatment of all of them. The use of this mode of treatment may cause a rather stormy course for the individual, whereas the withholding of it would mean a relatively benign duration with a favorable termination. It is for this reason that the writer wishes to bring to your attention certain diseases of the skin, congenital and acquired, some apparently caused by exposure to the light rays, others aggravated by them, some brought about by the ingestion or injection of certain foods and drugs, by disturbed metabolism, focal infections, local applications, physical allergy, and those of idiopathic origin in which the chemical rays have an ill effect.

A sharp line of demarcation for and against the use of chemical rays in certain diseases can not at this time be made, because of the differences of opinion expressed by various investigators. Although certain dermatoses have been produced by other portions of the spectrum than ultra-violet, we are chiefly interested in the lesions in which the chemical rays are involved.

Several of the conditions mentioned are very common in every day practice; others are rare, but are of sufficient interest to demand consideration.

It has been established that the chemical rays of the sun are those which produce erythema solare, but without doubt the heat rays play some part.¹ The degree of involvement depends upon the season, duration of exposure, and sensitivity of the individual. The last factor is perhaps the most important, as certain individuals who have been exposed to approximately the same conditions as others go on and develop chronic dermatitis solare. This shows that the ultra-violet light has surpassed the physiological limit. Ultra-violet rays do not cause cancer themselves; they produce characteristic degenerative and regenerative changes leading to precancerous lesions. Any irritation, even more ultra-violet light, can cause precancerous lesions to become cancerous.

"Sailors' skin," "farmers' skin," "fishermen's skin," and "tropical skin" are all terms denoting chronic dermatitis solare. Some changes in this condition no doubt are due to the other elements, but all investigators agree that chemical rays are the prominent factor. Lawrence² reports finding a formation of keratoses—the first member of his so-termed epithelial triad—on the body of a young man who had exposed himself to ultra-violet light for 30 minutes twice a week over a period of a year and a half. It is well to remember that chronic dermatitis solare clinically resembles chronic radio dermatitis. While considering this subject, lentigines should also be recalled. Sunlight³ is a potent and often the only recognizable factor in their development. They are most common in the summer months and in the individual most affected by sunlight. Goodman⁴ considers them the simplest form of photogenic disease. Coglievad⁵ thinks that freckles may be a biological defense process to protect nerve terminals at particularly vulnerable points, for they are usually on exposed parts and persist throughout life. At times they are the first sign of involvement of the skin of a serious pathological process.

It has been stated that Blumenthal's⁶ belief is that one of the causes of precancerous lesions of the skin is the surpassing of the physiological limits of exposure to ultra-violet rays. Thus the foreground for the formation of a cancerous lesion is brought about. If the individual has the necessary predisposition, the lesions go on to epitheliomas. Any irritation may cause the completion of the cycle, but ultra-violet rays are considered to be the chief cause. Lawrence² in his study of the epithelial triad, keratoses, rodent ulcer and epithelioma in Australia, attributed the large number of such lesions to the low humidity and great number of hours of sunshine. He compares the relative rarity of this same condition in England and believes it is due to the absence of the factors he has mentioned.

Cancerous changes⁷ are noted chiefly in blondes

² Lawrence: Low Relative Humidity of Atmosphere and Much Sunshine as a Causal Factor for the Great Prevalence of Skin Cancer in Australia. *M. J. Australia*, (Sept.) 1928.

³ Ormsby, O. S.: Diseases of the Skin. 4th Edition Lea & Febiger, Philadelphia, 1934, p. 558.

⁴ Goodman, Herman: Sun Burn Tanning. *Arch. Derm. & Syph.*, (Jan.) 1932.

⁵ Andrews, G. C.: Diseases of the Skin. W. B. Saunders, Philadelphia, 1930, p. 262.

⁶ Blumenthal, F.: Paradoxical Influence of Light Rays as a Causative and Curative Factor in Cancer of the Skin. *Arch. Derm. & Syph.*, (June) 1936, pp. 1042-1051.

⁷ Bechet, Paul E.: Excessive Solar and Phototherapeutic Irradiation. *Arch. Derm. & Syph.*, (Feb.) 1934.

¹ Stelwagon, H. M.: Diseases of the Skin. 8th Edition W. B. Saunders Co., Philadelphia, 1918, p. 148.

and red-haired people, the individuals affected most by the sun's rays. The lesions are most commonly found on exposed parts. Epitheliomas are rare in Negroes, brunettes, and people working indoors, and are found less in outdoor agricultural workers tilling a dark soil. In regard to skin cancers, all observers and investigators agree to the existence of preferred sites which seem to be explained on the basis of exposure to influences of the external world rather than on anatomical grounds, and that sunlight comes in for special consideration.⁸

Two series of cases reported⁹ in regard to moles becoming malignant express the opinion that such change is favored by undue exposure to sunlight.

The opinions of all present day investigators and clinicians coincide upon the ill effects of chemical rays of light in the various types of lupus erythematosus. At times the precipitating or provoking cause can only be attributed to the irritating effect of sunlight. Numerous instances have been reported in which the discoid type has changed to a disseminate one, and an apparent benign condition has thus become a fatal one by the exposure of the individual to light. The etiological factor in this disease is not known. Some investigators favor a tuberculous background. Randak¹⁰ has demonstrated that in a case of disseminate lupus erythematosus, even the uninvolved skin is over-sensitive to light.

Sun rays and artificial ultra-violet light are often unfavorable in that they cause a patchy pigmentation in areas which have had certain substances previously applied.¹¹ Lip creams, perfumes, creams, powders, toilet water containing oil of cedar, vanillin oil, and other essential oils, eosin and eosin compounds, are some of the substances bearing photo-sensitizing compounds. Their action is thus explained. Other compounds¹² which are not true photo-sensitizers in the ordinary sense (oil bergamot) are thought to belong to the dermatitis venenata group, yet the end result is the same—light is unfavorable. Most of the substances named are fluorescent. Fortunately, the pigmentation brought about in these cases vanishes readily when the local application of the substance is discontinued. An example of therapeutic benefit of this reaction is the use of crude coal tar in the treatment of psoriasis as outlined by Goeckerman. Opposite to this is the contra-indication to the use of coal tar ointments when x-ray is being administered as a therapeutic measure.

A number of drugs given internally possess the property of sensitizing the skin to light. Few of

them are in common use, however. Among the drugs having this quality are eosin, acriflavin hydrochloride, arsenic, phenobarbital, methylene blue, rose bengal, erythrosin, chlorophyl, quinine, mercurochrome, and hematoporphyrin. Most of the ones mentioned possess the common property of fluorescence, which property seems to bear some connection with the ability to photosensitize. Quinine, iodides, bromides, phenobarbital and arsenic are the main ones we have to consider. Most of the cases reported dealing with these drugs had not received large dosage. In some instances the sensitivity induced remained long after no trace of the drug could be found in the bile, the blood, or the urine. Hematoporphyrin is the one drug which, upon injection, shows marked consistency in the production of hypersensitivity. Photodyn, a derivative of hematoporphyrin, now used in the treatment of melancholia, has recently been reported¹³ to have caused an untoward reaction at the site of injection. These lesions followed exposure to sunshine. Fortunately, few reactions occur from the common drugs, but such possibilities should be kept in mind.

It was formerly thought that ultra-violet irradiation lessened the reaction to roentgen rays when applied to the skin, thus making the person's skin less susceptible. Andrews⁵ has proven by a well controlled group of patients that ultra-violet energy should not be applied in this manner nor to acute x-ray or radium burns for these forms of radiation are complementary. The increased tolerance acquired by deep pigmentation with ultra-violet light is so little, if any, that no importance can be attached to it. Chronic x-ray and radium dermatitis should not be exposed to strong irradiation. Most investigators believe that light is a decided factor in the development of carcinoma in these lesions and believe that this condition is in the same category as chronic dermatitis solare, a condition in which cancer is often a sequela. Persons having an extensive radio dermatitis often complain of a burning, pruritic sensation upon even short exposures to strong sunlight. These people consequently avoid such exposures to be free of the disagreeable sensations produced. Most clinicians do not recommend exposure to strong chemical rays even though fractional x-ray therapy is being given. Greenbaum¹⁴ cites an experience of his with two cases under treatment for acne. Such reports as his are much better than experiments and prove that radium and x-ray irradiation are complemented by ultra-violet rays.

Without a doubt it is a well known fact to the layman as well as to the medical profession that herpes, especially the facialis, labialis and frontalis types, are precipitated by exposure to chemical rays, especially when the individual is upon the

⁸ Miescher, G.: Skin Cancer and Cancer Research. *Schwiz. Med. Wchnschr.*, 64, (Oct.) 1934, p. 979.

⁹ Handley, S.: Prognosis of Simple Moles. *Lancet* I, 1401, June 15, 1935.

¹⁰ Ayers, S. & Anderson, N. P.: Light Sensitive Dermatoses. *J. A. M. A.* 103:1279, October 27, 1934.

¹¹ Greenbaum, S. A.: *Penna. M. J.*, (Oct.) 1934.

¹² Rogin, Jas. R. & Sheard, Chas.: Factors Affecting the Color of the Skin. *Arch. Derm. & Syph.*, 32:265, (Aug.) 1935.

¹³ Blum, Templeton: Sequel to Treatment of Photodyn. *J. A. M. A.*, (Feb.) 1937.

¹⁴ Greenbaum, S. A.: Dermatoses Due to Light Sensitization. *Am. Jr. Dis. Children*, (July) 1927.

water. The author³ has seen 17 cases in the clinic in one day. These cases all presented themselves on Tuesday following a Sunday at the beach. Five out of 7 members of a deep sea fishing party developed severe herpes labialis and facialis within 48 hours. This is aside from an acute generalized solare dermatitis, the most painful lesions of the skin brought about by ultra-violet ray exposure.

At present all investigators do not accept the once widely believed fact of sunlight determining the location of the skin lesions in pellagra, for it has been shown by Spies¹⁵ with a well controlled group of pellagrous patients that the disease can develop the typical skin lesions without exposure to sunlight and the lesions can be made to vanish while the patients are exposed to sunlight. He thinks that under certain conditions sunlight may act as an irritant and precipitate the cutaneous lesions, but at present this is still a matter of conjecture.

Others¹⁰ explain the skin lesions on a possibility of the disturbance of sulphur metabolism or the result of the absorption of photodynamic substances produced by certain fungi from the gastrointestinal tract when the diet is largely carbohydrate. Others think light sensitivity is not due to the presence of some photo-sensitizing chemical but to the absence or disturbed metabolism of some light protecting mechanism such as cystine.

Thus we see from the various ideas brought forward relating to the cause of pellagra dermatitis that there is no agreement. No investigators, with the exception of Spies, however, have treated pellagrins with ultra-violet rays.

In this disease the strongest arguments in favor of the disturbed sulphur metabolism are put forth.¹⁰

Hydroa aestivale (hydroa vacciniforme or recurrent summer eruption) is brought about by exposure to sunlight. Most investigators agree upon the ultra-violet portion of the spectrum as the exciting cause. However, several cases have been reported in which other parts of the spectrum have brought it about. It is thought, because of frequent finding of uroporphyrin and coproporphyrin in the urine and feces which are similar to hematoporphyrin, that the disease may be due to photodynamic substances of endogenous origin circulating in the blood. There is also thought to be some unknown constitutional idiosyncrasy which is present in children, especially boys, before puberty. Other investigators conclude the presence of the porphyrins to be a result and not a cause of the dermatosis. Clinically the cases of this disease are divided into those showing and those not showing hematoporphyrin. Fortunately this condition is rare and usually vanishes about the time of adolescence, yet it can be fatal.

Hutchinson's summer prurigo, found mostly in girls, is thought to be a mild form of this same

condition. Eczema solare in a case of hematoporphyrinuria has been reported by Goeckerman.¹⁶ It also is thought to be related to hydro-aestivale. In spite of all the case reports and investigations upon this subject, the exact role of the porphyrins is not understood nor is the source of the substance established.

Urticaria and angio-neurotic edema have been caused by exposure to sunlight. When produced in this manner it is considered a true physical allergy. Duke¹⁷ has done most of the investigating on this subject. In his cases the urticaria was produced only by the blue violet rays of light of the spectrum. In such cases it is not known if the rays act directly or indirectly. One explanation advanced is that sunlight causes the liberation of a histamine-like substance in the skin followed by wheal formation. Others have suggested hematoporphyrin as being the responsible factor. Urticaria produced by heat and cold belong in the same category as that under discussion. Few authors advise natural or chemical rays in the treatment of urticaria or angio-neurotic edema. Here again is seen the lack of a thorough knowledge of the production of the disease condition.

Idiopathic chloasma is similar pathologically to freckles, except the latter is an extremely circumscribed deposit of pigmentation while in chloasma it is circumscribed or diffuse. Ormsby³ believes that this type of chloasma may be due to exposure to the sun's rays. Here, as in vitiligo, the disease may not be noted until after exposure to ultra-violet rays.

Vitiligo is said to have followed a severe sunburn in certain individuals. Always the lesions show greatest involvement on the exposed areas. It is more noticeable during the summer months when the surrounding tissue has become tanned. No doubt in most cases depigmentation has taken place some time previously but never noticed until the contrast is made evident by sun baths. The true etiology of the disease is not known, yet sunburn is mentioned by all authors as a highly probable factor. The condition is further acted upon unfavorably by chemical rays as one would expect where the defense mechanism is absent. In contrast to erythema solare, and its sequela and lentigines, vitiligo is more common in brunettes and in the tropical regions of the earth.

Silver is introduced into the body by local application, ingestion, inhalation, injection, and by contact. The characteristic blue-gray or slate color of argyria in the skin and adjacent mucous membranes is seen only on exposed parts of the body. Gaul and Staud¹⁸ have shown by spectroscopic methods that silver is in the same quantity

¹⁵ Spies, T. D.: Relation of Pellagrous Dermatitis to Sunlight. *Arch. Int. Med.*, 56:920-921, (Nov.) 1935.

¹⁶ Goeckerman, W. H. et al: Eczema Solare in a Case of Hematoporphyrinuria. *Arch. Derm. & Syph.*, (Oct.) 1929.

¹⁷ Duke, W. W.: Urticaria Caused Specifically by the Action of Physical Agents. *J. A. M. A.*, 83:3-9, (July) 1924.

¹⁸ Gaul, L. E. & Staud, A. H.: Clinical Spectroscopy. *J. A. M. A.*, 104:1387, April 20, 1935.

throughout the entire skin if administered internally, but clinical signs are only present upon exposed areas. They and Stillians¹⁹ conclude that the discoloration depends upon the intensity and duration of solar or artificial radiation and the amount of silver present. Cases of pulmonary tuberculosis, in which gold has been used in the treatment, have been reported²⁰ to show an analagous reaction upon exposure to sunlight, as have cases of argyria. In this series the color is said to be a distinct gray and readily recognized in natural light.

To date the exact role of the chemical rays in xeroderma pigmentosa is not understood, as is evidenced by the number of opinions expressed on the subject. However, all observers agree that true or artificial ultra-violet rays are contra-indicated in this disease. Some instances are recorded in which an intensive sunburn preceded the characteristic eruption. In other cases, no hypersensitivity to it could be demonstrated. A fact against sunlight's being the primary cause is that a case of this disease has not been evidenced in Australia, where there is much sunshine, and that two or more cases have been recorded in families in which there has been intermarriage. Kaposi, who first described this disease, did not consider light as an etiological factor. Nevertheless, once the disease has developed, protection from light is a necessary factor in treatment. In the unprotected cases, death usually occurs at about the age of 12 years from metastases of the cancerous growths which develop in the skin. Hematoporphyrin is seldom found in the urine of these cases.

Most authors consider the disease a result of congenital hypersusceptibility to ultra-violet, and believe that a deficiency of the protective mechanism is responsible. However, they do not agree upon the cause of the deficiency.

Psoriasis has not been experimentally caused to turn into an exfoliative dermatitis. It is the impression of MacKee²¹ that a universal psoriasis or a condition which can not be distinguished from an exfoliative dermatitis can result from a too vigorous application of ultra-violet irradiation, especially when used at the beginning of treatment. Bechet⁷ reports his observance of psoriatic cases which have become worse following excessive exposure to sunlight. He states that the process might be explained by lowered resistance of the tissues from a severe erythema solare.

MacKee reports the same belief regarding eczema and exfoliative dermatitis as he has for psoriasis. Dixon¹⁴ believes that the skin of an eczematous person is more fluorescent than that of a normal person, which may account for its

greater sensitivity to light. Numerous other authors advise against exposure to excessive ultra-violet rays in these same conditions, because of the tendency to develop untoward results even to the extent of an exfoliative dermatitis.

Long before any scientific research on the subject of light was done, it was recognized in cases of variola that the sensitivity of the skin to light was much intensified and had a decided ill effect upon the skin lesions of this disease. Vesicles were changed to pustules, scars were made more deep. Finsen first noted the invisible component of light to be at fault. One theory advanced for the presence of the sensitivity is that a fluorescent or sensitizing substance is in the tissue much like that present in buckwheat poisoning.

Stillians,¹⁹ in his observation on "Bronzed Diabetes or Hemochromatosis," believes that light intensifies the color. The pigmentation present in this disease is due to hemosiderin, which is iron-containing, and to hemofuscin, a non-iron-containing substance which is closely allied to the porphyrins. This latter mentioned compound perhaps explains the pigmentation in this condition which becomes more pronounced upon exposure of the skin to light.

For an individual to present the condition of achromia parasitica, it is a prerequisite for him to have the fungus infection tinea versicolor and then to be exposed to ultra-violet rays from some source.²² The normal portion of the skin becomes tanned (the physiological reaction), while the diseased portion becomes apparently lighter. The light colored areas are due to the filtering effect of the physical obstruction, not to any other cause as formerly thought. Thus, no disease is brought about by the irradiation but is in reality a protection from the sun's rays. This condition does not deserve to be an entity in diseases of the skin, yet it is a condition brought out by chemical rays and needs to be explained.

Numerous clinicians have noted that cases of erythema multiforme occur after a day of sun bathing on the beach. Recurrent eruptions of this disease have also been noted after repeated exposures. Ayers and Anderson,¹⁰ in their cases of erythema multiforme which have been precipitated by sunlight, find the individuals particularly prone to develop lupus erythematosus at a later date.

There is a total lack of pigment in the skin in albinismus; thus it is quite evident that the skin has no defense whatsoever against chemical rays of light. This condition is considered an atrophic one. No discussion of the condition will be made, for it is too obvious. Fagopyrismus or buckwheat poisoning, some investigators state, is found only in animals. However, others²³ state that it is found in man. The illness is brought about by the

¹⁹ Stillians, A. W.: Argyria. *Arch. Derm. & Syph.*, 35:67-77, (Jan.) 1937.

²⁰ Cardis, F. & Coute, M.: Cutaneous Pigmentation after Injection of Gold Salts. *Ann. de Dermat. et Syph.*, 7:229-244, (March) 1936.

²¹ Personal Communication.

²² Lewis, G. M. & Hopper, M. E.: Pseudo Achromia of Tinea Versicolor. *Arch. Derm. & Syph.*, 34:5-850, (Nov.) 1936.

²³ Eidinow, A.: Photo-dynamic Sensitization. *Brit. J. Derm.*, 47:277, (July) 1935.

feeding of spoiled buckwheat to albino or partly albino animals, then exposing them to the sunlight. Erythema and edema in the white areas result. No reaction is noted in a control group of animals kept in darkness. The reaction can also be inhibited with applications of mud in susceptible areas. The substance in this case is said to be phylloporphyrin. Thus, apparently, we have a logical explanation for the condition on the basis of fungi which cause the production of a photosensitizing substance in the body.

Other diseases reported which are thought to be unfavorably affected by sunlight or in which actinic rays are deleterious include melanosis,²⁴ a disease in which the disorder is thought to be due to the action of actinic rays on a skin sensitized by toxic substances produced by improper food. Syphilodermas have been cited as becoming worse following blistering doses of sunlight. The explanation offered by Bechet in these cases is a lowered resistance of the tissues involved by a severe erythema. Greenbaum¹⁴ states that in Addison's disease the skin is sensitive to light.

Ayers and Anderson¹⁰ report a case of lichen planus appearing rapidly after exposure to the sun, which was sharply limited to the sunburned area. Chilitis actinica thought to be due to a local tissue hypersensitivity and streptococcic furunculosis have also been reported by the same authors. Three of the chilitis cases returned with prickle cell epithelioma of the lip. Practically all of these cases involving the lips occurred in dark-skinned races. Hypertrichosis in a child limited to the light exposed areas and the occurrence of this same condition with hydroa vacciniforme have also been reported. Acne rosacea is another condition in which most authors believe exposure to natural or artificial ultra-violet light is contra-indicated.

SUMMARY

An effort has been made to determine the consensus concerning the use of ultra-violet irradiation, either natural or artificial, and again to bring to notice the dermatoses in which such therapy is thought to be contra-indicated or in which it is thought to be an etiological factor.

1. Ultra-violet light should not be administered in the following dermatological conditions: Chronic dermatitis solare, precancerous lesions, lupus erythematosus, x-ray dermatitis, eczema solare, hydroa aestivale, Hutchinson's summer prurigo, herpes, argyria, gold dermatitis, xeroderma pigmentosa, acute psoriasis, acute dermatitis venenata, acute eczema, acute dermatitis exfoliativa, variola, bronzed diabetes, recurrent erythema multiforme, albinismus, melanosis, Addison's disease, acne rosacea.

2. Exposure to excessive ultra-violet light may induce: Herpes, dermatitis in pellagra, hydroa

aestivale, Hutchinson's summer prurigo, urticaria, angioneurotic edema, idiopathic chloasma, vitiligo, achromia parasitica, erythema multiforme, lichen planus, chilitis actinica, hypertrichosis.

347 WEST BERRY ST.

ABSTRACT

A SURVEY OF BLOOD TRANSFUSION IN AMERICA

Philip Levine and Eugene M. Katzin, Newark, N. J., (*Journal A. M. A.*, April 16, 1938), made a survey of the present status of blood transfusion in America through a questionnaire circulated among all hospitals approved for internship by the American Medical Association. The questionnaire was mailed to about 700 hospitals, 350 of which responded. About half of the hospitals surveyed employ two methods, the citrate and one or another of the direct methods. The great majority of transfusionists employing the direct method use either the multiple syringe procedure or one of the simpler forms of apparatus which are manually operated, and have avoided any apparatus in which the blood flow is regulated by a ball-in-valve mechanism. Transfusions are for the most part performed, at least in ward cases, by members of the intern staff, under the sometimes inadequate supervision of a resident or member of the attending staff. The ideal situation would appear to be that in which a transfusion team is employed in close association with the laboratory. However, with a rapidly changing house staff this is believed to be possible only to a limited extent. Yet even under such conditions it is feasible and practical that this work be done under the direct control of a small number of trained workers who instruct each new group of interns as they enter the hospital. Furthermore, the persons in charge might then form the liaison between the various hospitals, the local health department and medical societies to form a co-operative organization for the purpose of regulating professional donors and to serve as a center for the study of problems related to blood transfusion. Some such operative action is required, since, as this survey reveals, many institutions lack adequate control of syphilis in both professional and volunteer donors. Until American hospitals have at their disposal donors from carefully regulated agencies, it seems essential for each hospital to perform a recognized test for syphilis immediately prior to the transfusion. Although the routine practice of selecting a compatible donor by a blood-grouping test of the prospective donor's cells, followed by a direct matching of the donor's cells and the patient's serum, is well established, query on post-transfusion accidents reveals that incompatibility of the bloods still accounts for numerous avoidable accidents. It is probable that mistakes in selecting donors are attributable to poor laboratory technique in general and, in particular, to the use of grouping serums that are not sufficiently potent. In many institutions insufficient effort is taken to obtain potent serums. Many unfortunate accidents might easily be avoided if a cooperative organization of hospital, medical society and local health authority would undertake to teach recognized laboratory procedures for compatibility tests. Such an organization might act as a local "registry" to which atypical blood could be sent for study and grouping and where transfusion accidents could be recorded and analyzed. Because of the widespread and increasing use of transfusions, these services, along with the control of the professional donor and measures to prevent transmission of disease by transfusion, are urgently necessary in the present American hospital program.

²⁴ Kinnear, J.: Case of Riehl's Melanosis. *Brit. J. Derm.*, 47-191, (May) 1935.

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Editorials

"OUTGROWING PAINS"

Paraphrasing "growing pains" seems to be appropriate for this dissertation. It is expecting a great deal of the potential corrective powers of a growing child to outgrow congenitally deformed feet, dislocated hips, and acquired deformities resulting from injuries, infection, or infantile paralysis.

Congenital deformities as a whole are recognized early and treatment started at an early age. Especially is this true of congenital deformities of the feet, hands, and spine. Congenitally dislocated hips are frequently neglected until the fourth or fifth year, due to apparent difficulty in diagnosis. Any child with an abnormal gait not accountable by easily demonstrable cause should have the benefit of an x-ray examination. By the time a child reaches walking age a congenitally dislocated hip is easily diagnosed by the x-ray. The results of treatment in this malformation are reasonably good when treatment is instituted before the fourth year. After the fifth year the incidence of good results rapidly diminishes. After the seventh year good results are indeed the exception. Parents should be impressed of this fact by the physician.

Torticollis, often caused by a mild birth injury to the sterno-mastoid muscle, results in assymetry of the head and face as well as limited motion of the head. A simple tenotomy of the offending fibrous cord done in the second year of life will prevent head and face assymetry. Exercises and manipulation will help during the first year of life, but seldom will a satisfactory result be obtained by non-operative methods.

Acquired deformities from fractures and dislocations are usually easily corrected by properly

designed surgery. Closed reduction of fractures and dislocations is always preferable to open reduction. The dangers of infection from open operation cannot be denied. Reduction by traction and immobilization until union has occurred are still two fundamental principles which modern gadgets have not displaced.

In fractures of the elbow, immediate post-reduction observation is absolutely essential for forty-eight hours. Volkmann's ischemic contracture can be avoided in many instances by early reduction and if there seems to be impending danger, section of the bicipital fascia is indicated.

Fractures about the epiphysis must be accurately reduced. If not so reduced an epiphyseal arrest may occur, resulting in arrested growth in length of the bone and deformity.

Meticulous care in reduction of fractures and proper immobilization to maintain the reduction will prevent deformity.

Infection of bones and joints offers a formidable problem. Infection in joints is a surgical emergency. Thorough early drainage of suppurating joints will prevent ankylosis. The pyogenic organisms produce an enzyme which, if allowed to remain in the joint, soon destroys the cartilage. If adequate early drainage is instituted and early motion encouraged, ankylosis of the joint is prevented.

Acute hematogenous osteomyelitis presents a different problem. It seems that the question of early drainage is still unsettled. Septicemia always is present. The natural resistance of the patient to the offending organism is of prognostic importance. The trend in treatment is to await suppuration before operating. It would seem that when pus is present, drainage by simple incision is indicated. Certainly radical surgery such as diaphysectomy and the cutting of large windows in bones is definitely contra-indicated in the acute stage. Good supporting treatment will save many lives. Frequent blood transfusions and infusions of 5 per cent glucose in normal salt will help carry the patient through the early stages of the septicemia. Biological preparations such as vaccines, antitoxins, and lysates may be used. There are favorable reports concerning the use of antitoxin and lysates especially. In general, the natural resistance of the patient and treatment to augment the resistance with well-timed conservative drainage will carry the patient through the acute stage. The incidence of morbidity in the involved bone is high. Radical sequestrectomy should be delayed until the involucrum has formed and the general condition of the patient warrants further surgery.

The residual paralysis from poliomyelitis resulting in disability and deformity comprises a large percentage of patients admitted to any orthopedic ward. No general rules will cover all cases. During the first two years no extensive surgery should be contemplated because there is a natural return of muscular function in this period which cannot be foretold. Therefore the treatment should be di-

rected towards helping nature regenerate the motor nerves and prevent deformity. Rest in properly fitted splints along with carefully given physiotherapy is to be encouraged. After two years well-designed orthopedic operations may be performed. Operations to stabilize unstable joints, in the foot especially, and tendon transplantations are of great benefit. The back must be watched for scoliosis. Muscle training and massage by a competent therapist is of great value. Well-made braces are always appreciated.

The problem of the spastic child is forever present. The prognosis depends in greater part on the mentality of the patient. It is absolutely useless to attempt muscle education in a spastic child of low mental ability. The cooperation which is so important is not forthcoming and favorable results cannot be expected. Prevention of contracture by passive and active manipulation is the first responsibility. Later muscle and speech training are undertaken. Surgery in the form of peripheral motor nerve neurectomy is of great value but should always be followed by efficient relaxing and muscle training work. The problem is an almost endless one. Gratifying results are frequently obtained by cooperative work between the physician, therapist, and family.

The treatment of tuberculosis of bone and joint in children is controversial. One school favors early surgery, the other conservative treatment. Somewhere between is the truth. Rest of the joint in apparatus or in a frame for several months invariably improves the general health. Fusion of joints may then be undertaken. Whenever in doubt, a conservative course can always be followed without fear of criticism. Rest and good general care are still the fundamental principles on which the treatment of tuberculosis is based.

The treatment of crippling conditions of childhood is now on a sound basis. It is often time consuming. Patience and perseverance are the bywords of the orthopedic surgeon. Without a good organization, his work is discouraging. A visit to any of the many children's hospitals throughout this land will reveal the justification of the work and the expenditure incidental thereto.

REHABILITATION OF THE CRIPPLED CHILD

What becomes of the crippled child at the age of sixteen or eighteen who represents an investment of surgical and hospital services of from \$300 to \$3,000? Too frequently he is cast into the maelstrom of modern society psychically placarded "repaired but unfit." Infrequently enough he may be pointed to in the community as a miracle of modern medical art, and too often there is a residue of his original defect, but in either case he remains the "little cripple grown up." In the hospital and convalescent home he associated with his fellow

cripples, he was one of a group, and he competed with his kind in school and handiwork, but at home he became the dwarfed plant among flowers. If he possessed more than the average ability he advanced scholastically and he may have had the desire to train himself to the degree that he attained recognition deserving of his ability, but the average of his kind is handicapped physically and psychically.

Three facilities have been developed within the last two decades to provide not only special vocational training for the cripple but a means of exercising his training and to earn a livelihood commensurate with his handicap. The first is that existing in the State of Indiana which has gradually evolved from the Federal Rehabilitation Act and accepted by the State in 1921, and more recently has been included in the Social Security Act of 1933 in the Vocational Rehabilitation Division of the Indiana Department of Education maintained from federal and state funds in equal proportions, and provides vocational training and employment adjustments to persons permanently and physically handicapped sixteen years of age and above. During the year ending in 1937, however, less than 25 per cent of the recipients of training from this division were under twenty-one. Too much cannot be said for the efficiency of this department and the scope of their operations to include advanced training of a vocational nature. These include college training in the professions, industrial training, and a placement service which found employment for between eleven hundred and twelve hundred candidates. However, the resources of the Vocational Rehabilitation Division were not exhausted during the past fiscal year and every welfare agency, including the doctors, should make every effort to place our crippled children in the hands of the Rehabilitation Division of the Indiana Department of Education.

The second type of facility for rehabilitating crippled children which is existent in various centers in our country is a type of institution established by cities and larger governmental units aided in part by Welfare Foundations in which the crippled child is graduated from his hospital course in occupational therapy into the small industrial shop where work is provided for him under supervision, and he remains within the shadow of the purely medical institution. Under this system the cripple becomes self-sustaining and his medical care, if necessary, is continued. The products of the work shop are not marketed below prevailing manufacturing costs and the children at work are under technical supervisors whose qualifications fit their responsibilities. To date no such institutions exist in the State of Indiana, but the needs and the civic background are ripe for such service to complement the medical centers at which restorative work with cripples is being done.

The third type of facility which has been established by private endowment as a department of

hospitals for crippled children is similar to the above except that it is under direct supervision of the hospital board and therefore in closer liaison. It is this institution which has been established in one or two centers in England which makes it possible for the cripple to step from the hospital portal at the termination of his active medical or surgical care, at the age of sixteen, and be admitted to the dormitory of the small industrial school, there to serve his apprentice period among those of his kind. After he has proven himself, both in his training and aptitude, he may remain as a permanent employee or leave of his own accord. The social atmosphere of such an institution is most beneficial. Everything is provided for the entertainment of the trainee, his hours at work being consistent with his physical capacity. He remains under the supervision of the medical staff and the products of his hours in the "shop" find a ready market. Such products include almost every article of bench-made type including shoes, clothing, furniture, and lighter metal goods. There is an urgent need for such an institution in Indiana.

Our responsibility to the crippled child does not end with the correction of his physical defect in the hospital. He cannot be returned to his home community to remain an object of social interest and to be denied the opportunity to become a productive unit in our economic complex. We, as physicians, know his psychic and physical capacities; let us exhaust our present facilities for training the cripple and let us plan and talk of more adequate institutional training for his benefit.

PROPOSED BUILDING FOR THE ARMY MEDICAL LIBRARY AND MUSEUM

The medical profession of the country will be pleased to learn that there is now a bill pending before Congress providing for construction of a building which will adequately house the Army Medical Library and Museum. We of Indiana are particularly interested in this because the development of that institution to its present magnificent proportions is largely due to the untiring efforts of a Hoosier, Dr. John Shaw Billings.

Known familiarly as the Surgeon-General's Library, this *bibliothek nationale* is the largest medical library in the world. The building in which it is now located was constructed in 1887, is entirely obsolete and deficient, and the fire hazard is incalculable. The necessity for a modern fire-proof structure can best be appreciated when it is understood that the library consists of 500,000 bound books on medical subjects, and another half million pamphlets, theses, and manuscripts, many of them unique and of inestimable value. There are also numerous oil paintings, photographs, and autographs of famous surgeons of every country and every age, most of them irreplaceable.

The library receives two thousand medical journals, practically every reputable journal published throughout the world, in every modern language. These as well as the books are indexed in the most complete and comprehensive catalog ever undertaken. The late William H. Welch, of Johns Hopkins, characterized the *Index Catalogue* as "America's greatest gift to medicine," and Osler said of it, "In no other field of knowledge is there a work comparable to this, the world's standard medical bibliography."

To the physician in practice, the most important feature of the library is its "inter-library" loan system. With the exception of a few of the rarest books, any volume in the library may be borrowed by any reputable physician or scientist by requesting the loan through his nearest library. The book is sent through the local institutions at no cost except carriage charges. Thus a physician engaged in the preparation of a paper or in research has this enormous collection of books at his immediate disposal at very little expense and with very little trouble. There is also a department devoted to bibliography and an official photographer from whom almost any desired photograph may be obtained at little cost. In 1937 there were 14,000 books loaned by the Army Medical Library, the largest users being Yale, McGill, Columbia and Michigan universities and the Mayo Foundation. Almost all of the popular abstracting services which are now provided for physicians' use are dependent on the Army Medical Library for their source material and many of the textbooks in common use are written or revised in the institution.

It was intended that the Army Medical Museum be housed in the same structure as the library. This, the largest museum of pathology in America, was established by the Medical Department of the Army in 1863, and among its first specimens are those from the battlefields of the Civil War. In addition to the educational advantages offered by this great and varied display of pathological specimens, the museum acts as registrar for at least six "pathology registers" sponsored by as many scientific societies:

Eye, Ear, Nose and Throat Pathology—American Academy of Ophthalmology and Otolaryngology.

Bladder Tumors—American Urological Association.

Lymphatic Tumors—American Society of Pathologists and Bacteriologists.

Tumors—American Society of Clinical Pathologists.

Skin Pathology—American Dermatological Association, Incorporated.

Dental and Oral Pathology—American Dental Association.

Thus the museum becomes a clearing house through which a more intelligent understanding and classification of obscure pathological lesions may be developed.

It is obvious that there is sore need for a building which will properly house and protect these two

invaluable institutions, and it is suggested that interested readers communicate immediately by wire with their respective Congressmen approving the expenditure of funds for this worthy project and asking support for S. 3919 and H. R. 10455, companion bills now pending in the Senate and House of Representatives respectively.

TOURIST CAMP LEGISLATION

A recent decision of the Indiana Supreme Court would indicate that Indiana cities and towns have the right to pass and enforce regulations governing the conducting of tourist camps within their boundaries. The case in point involved an ordinance adopted by the authorities at Munster, a small community in Lake County.

Among the provisions of this ordinance was the requirement that each sleeping room in the camp must provide 500 cubic feet of air, which the court held to be wholly reasonable. Further, the court said that cities and towns have the right to regulate housing and sanitation.

The defendants in the case held that the Indiana State Board of Health, under the law of 1935, had sole jurisdiction in such matter, with which opinion the court failed to agree, stating that the act mentioned established minimum requirements, while municipalities had the right to provide further regulations. It is interesting to note that the Munster ordinance provides that residence in such camps is limited to thirty days, which provision also was upheld. This point will prove an interesting one, since many folk have in times past made it a habit to remain in one locality for the whole of the summer season.

The decision goes on to clarify the meaning of "tourist camp," which will be of material interest to other communities seeking remedial legislation from what has come to be a near pest in certain sections of the state. Rural and urban communities are given the same regulatory powers and while camp owners receive their original permit from the state health authorities, this does not in any manner conflict with local regulations, according to our Supreme Court.

Health officials throughout the state, as well as a large per cent of our population, will hail this decision as one which is much needed. Tourist camps are nothing new and as the "automobile population" increases these camps will increase in number. We believe such camps are necessary; they afford low-price accommodations to thousands of tourists, most of whom are law abiding citizens and make an effort to conduct themselves properly.

The tourist camp problem has become a health problem and now that our highest court has clearly defined the law in the case it but remains for our local health officials to draft such regulations as will lead to the operation of clean camps, camps into which one may turn at the end of a day of hard driving secure in the knowledge that Indiana tourist camps are healthful, sanitary, homey resting spots.

MEDICAL FEES

The subject of medical and surgical fees charged by physicians is now open for general discussion. It is a ticklish subject to bring up, because it strikes at the pocketbook of the medical profession. But because it is ticklish, we feel that it is discussed all too little in open forum. We wish to discuss the subject quite frankly here, for the reason that medical and surgical fees are beginning to play a large part in the supposed trend toward socialized medicine.

At the present writing there is much to do about free immunizations. The medical profession rightly holds that immunization belongs to the family doctor. The health department holds that the health officers should step in when and if the private physicians fail in this responsibility.

If this is our responsibility, how are we going to meet it? How are we going to get parents to bring their children to our offices for immunizations? We can't do it with the large moderate income group if we charge from two to five dollars per "shot." So far as public welfare is concerned, immunization is a mass problem; not an individual one. If our private physicians expect or hope for any considerable amount of immunization work, we must adjust our fees to meet the demand for mass production.

Three dollars may be little enough for a typhoid shot or smallpox vaccination, but that fee is worth nothing if it destroys the demand for private immunization service. Suppose the average man of moderate income has four children whom he wants immunized for smallpox, typhoid and diphtheria. His total cost at the above mentioned fee would be seventy-two dollars. Will he pay it? Not at all. Instead he will wait until his youngsters enter the public schools when the state will provide such immunizations without cost, if forced to do so.

Many doctors still charge fifteen dollars for salvarsan injections in the treatment of syphilis. This fee seems to be largely based on the idea that it is a penalty exacted from the patient for his wickedness in contracting a venereal disease. Whatever the reason, such a charge is the surest way of driving these patients away from their regular doctors and into the hands of free clinics. Even if only a few doctors charge such fees, the entire profession suffers. Laymen gossip about excessive medical and surgical fees; they rarely discuss reasonable ones.

The family wage earner with an income of \$100 per month or less is the man the medical profession must look out for. The physician or surgeon who does business on a "one price for all" basis and makes no concession to the poor devil who can hardly afford shoes for his children is helping to sow the seeds of socialized medicine. If we are to preserve the private practice of medicine in this country, we must place our fees within the reasonable reach of the independent poor.—Editorial, *West Virginia Medical Journal*, April, 1938.

Editorial Notes

If your dues are not paid, this is the last issue of THE JOURNAL that you will receive.

An Indianapolis physician recently attended a patient who tendered in payment a "seed corn" check on a distant bank and received the difference in cash. The doctor now has the check as a souvenir!

Scientists at Cornell University have succeeded in giving a pig nervous prostration. Now let them turn their talents to scaring a road hog out of his wits, if any.—St. Louis *Star-Times*.

Incidentally, it is not too early to make reservations for your own Association meeting which will be held in Indianapolis, October fourth, fifth, and sixth. The Indianapolis doctors are making plans for the biggest party in the long history of one of the real live-wire medical organizations of the country.

Referring to our recent comment on the matter of the employment of a full-time executive secretary by several of our larger county medical societies, it is interesting to note that already three of this group have the matter under consideration. St. Joseph County is seeking such a person, the Indianapolis Medical Society has asked for information on the subject, while Lake County recently voted to send a member to Wichita, Kansas, and to Milwaukee, to make a study of the plans in operation at those points.

The attention of some two hundred members is directed to a provision in our By-laws covering the matter of delinquency in the payment of the annual Association dues. Delinquency officially begins as of February first, and the names of delinquents are removed from the mailing lists of THE JOURNAL on June first. This, of course, means that those who do not pay their dues this month will not have the pleasure of receiving THE JOURNAL until such delinquency is removed. Further, the payment of dues now will make it unnecessary for headquarters to write to you about it, and your local secretary will appreciate it.

The San Francisco session of the American Medical Association this month promises many things. First of all, it will be unusually successful from the

standpoint of attendance and in the preparations made by the California doctors to entertain the thousands who will attend. The House of Delegates will demand much of the attention of medical men over the country since it is believed that many of the present day problems in and out of the profession will come up for discussion and possible solution. We have every faith in the House as well as in the official family of the Association and look forward to constructive work by that body.

Effective July 1st, all applicants for a marriage license in the State of New York will be required to submit to a serological test for lues; no license will be issued if either party is found to be affected by a venereal disease in a communicable form. This new law, together with an act already in force in that state providing that all pregnant women shall undergo a serological test for syphilis immediately upon determination of pregnancy, should have a salutary effect on the syphilis problem in New York. It now but remains for the medical profession of New York to play four square with the law and see to it that no cheating is done. Certificates carelessly issued, it is pointed out, will cast a stigma upon the entire medical profession.

Indiana cities on the shores of Lake Michigan are making preliminary plans to abide by the order of the State Board of Health relative to the dumping of sewage into that body of water. The Board has set next January first as the time limit and while it is not to be expected that all the cities concerned will have sewage disposal plants in operation by that time, it is probable that all plans will be well in hand by the end of the year. It becomes a huge project, this thing of providing sewage disposal plants for such a large population and many efforts have been made to organize the entire district into one sewage commission. It is to be hoped that whatever plan is adopted will eliminate the political factor, a thing quite possible since sewage commissions have carried on for many years in other communities without the suspicion of a political tinge.

We note that "Ted" Wiprud, for nine years executive secretary of the Medical Society of Milwaukee County, has resigned and that his post is to be taken over by another layman, James O. Kelley. The experience of this society has been such that no question was raised as to the advisability of employing a successor to Mr. Wiprud. "Ted" goes to Washington, where he becomes executive secretary for the Medical Society of the District of Columbia. He did a fine job of it while at Milwaukee and the District society is to be congratulated for having engaged him to look after their affairs. So another state organization subscribes to the belief that a full-time lay secretary

is an important adjunct. As a matter of fact, few medical men are equipped for such work and a layman often fits into situations where a doctor would be very much out of place.

Three months hence we will be directing our various ways toward the Capital City, there to attend our annual convention. A preview of the plans for the meeting, both as to scientific session and entertainment, would indicate that we are in for one of the best meetings in our long history. As we have said before, it will be well to make that hotel reservation right now rather than to wait until about the time you are leaving home, or perhaps waiting until you arrive at Indianapolis, then pester the local housing committee about an abiding place, perhaps complaining because you do not get the best of accommodations. Hotel reservations are easily made and it is a feeling of satisfaction to know that when you get to Indianapolis there is a room just to your liking awaiting you.

The state-wide primaries of 1938 would indicate the need for drastic changes in our present laws governing this semi-annual event. Never in our memory have we heard so many criticisms, and these have not been limited to any particular locality. One of the glaring evils of the present system is the extent to which candidates are "held up" by solicitors for this and that "fund." In certain sections of the state this evil has grown to such proportions as to deter many from entering the primaries. Much of this is, of course, due to certain of the candidates, who in their campaigns subscribe to almost everything presented to them. It has been recommended by many that changes in our present laws be made to the end that "donations" be very much restricted and that the solicitation of candidates for donations shall be prohibited.

Not that it means anything to physicians, who are presumed to obey all traffic laws, but as a matter of news interest, alone, we direct attention to a new angle of traffic law enforcement, that of an inter-state clearing house for all such offenders. It seems that the plan works thus: a driver is picked up in a certain state, other than the one in which he resides, and is found guilty of a traffic violation sufficiently serious to nullify the driver's license in the state where the offense was committed. Information to this effect is sent back to his home state and the proper authorities therein proceed to detach said driver from his license in his home state. Such is the story in the *Indianapolis News*, verified by the personal experience of a friend of the writer, not so long ago, when the Indiana authorities cited him to appear and show

cause why his Indiana license should not be revoked because of a finding in a court in an eastern state. We are inclined to give full endorsement to such procedures.

The State Highway Commission reports that of the thousands of applicants for drivers' licenses, under the new law, 6,432 persons were found to be ineligible for such permits; 2,516 of these were found to be physically or mentally incapable of operating a motor car, while the remainder will be afforded another opportunity to pass the required test. The present law requires all young folk to take a driving test under the personal supervision of the state highway police department and, if licensed, they are required to make monthly reports of their doings. The above figures are of sufficient importance to justify the opinion that of the more than one million licensees in the State of Indiana there are many who should not hold these driving permits. The present requisite for adults is that they be residents of the State and that they declare themselves to be physically fit. If so many of our young folk are found incapable of operating these modern juggernauts, how many of our adults will be found in the same classification?

Members of the House of Delegates are reminded that one of their chief duties is the selection of the place for the next meeting. Our annual conventions are rapidly growing in the matter of attendance, and it is becoming quite a problem to entertain such large numbers. In times past some of our local county societies, imbued with a most hospitable spirit, have extended invitations for us to meet with them and these, on occasion, have been accepted. On arrival we have found that hotel accommodations are inadequate, that the city has no auditorium large enough to take care of us and that the annual banquet, an occasion that recently has come to be one of the chief highlights of the convention, becomes a headache not only to the local committee and association officers but to members as well. Few Indiana cities are equipped to handle a convention such as ours and local groups should be quite chary about inviting us to come and see them until they can assure us of proper conveniences. We are agreed that the annual meeting affords a decided impetus to medical affairs in the community in which it is held but it should also be borne in mind that if we are to continue with our progress of the past few years we must have space and more space in which to expand. We urge our House of Delegates to give this matter earnest consideration.

Are your 1938 dues paid? If not, this is the last copy of *THE JOURNAL* that you will receive. Mailing lists will be revised before the July issue is mailed.

Crippled Children In Indiana

OLIVER W. GREER, M.D., DIRECTOR
DIVISION OF SERVICES FOR CRIPPLED CHILDREN
INDIANA STATE DEPARTMENT OF PUBLIC WELFARE
Indianapolis

"Every rehabilitated crippled child is a potential wage earner."

The Social Security Act of 1936 provides for a federal state-in-aid grant of slightly in excess of \$55,000 annually for the extension and improvement of services for crippled children in areas which are predominantly rural and areas suffering from severe economic distress.

The Social Security Act states in part:

"Sec. 511. For the purpose of enabling each state to extend and improve (especially in rural areas and in areas suffering from severe economic distress), as far as practicable under the conditions in such state, services for locating crippled children, and for providing medical, surgical, corrective, and other services and care, and facilities for diagnosis, hospitalization, and aftercare, for children who are crippled or who are suffering from conditions which lead to crippling, there is hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1936, the sum of \$2,850,000. The sums made available under this section shall be used for making payments to states which have submitted, and had approved by the chief of the Children's Bureau, state plans for such services.

"Sec. 513 (a) A state plan for services for crippled children must (1) provide for financial participation by the state; (2) provide for the administration of the plan by a state agency or the supervision of the administration of the plan by a state agency; (3) provide such methods of administration (other than those relating to selection, tenure of office, and compensation of personnel) as are necessary for the efficient operation of the plan; (4) provide that the state agency will make such reports, in such form and containing such information, as the Secretary of Labor may from time to time require, and comply with such provisions as he may from time to time find necessary to assure the correctness and verification of such reports; (5) provide for carrying out the purposes specified in section 511; and (6) provide for cooperation with medical, health, nursing, and welfare groups and organizations, and with any agency in such state charged with administering state laws providing for vocational rehabilitation of physically handicapped children.

"(b) The Chief of the Children's Bureau shall approve any plan which fulfills the conditions specified in subsection (a) and shall thereupon notify the Secretary of Labor and the state agency of his approval." (Title V; Part 2; Sec. 511 and Sec. 513 (a), (b).)

It shall be the purpose of this article to show that such cooperative facilities have been established, and special emphasis will be placed upon the part that the Indiana State Medical Association has played and will play in the development of a program for extension of services to crippled children within the State of Indiana.

SERVICES AVAILABLE BEFORE 1936

Before considering the extension of a program for services to crippled children, it might be well to review briefly services for crippled children which existed in the state prior to the enactment of the Social Security Act and the Welfare Act of 1936.

The Acts of 1921 provided for the establishment of the James Whitcomb Riley Hospital located in the city of Indianapolis to which afflicted children might be committed by proper judicial authority, when a parent, guardian, or custodian petitioned such judicial authority for service for an afflicted child and when as a result of investigation on the part of the judge of a juvenile, circuit, or superior court it was proved that the petitioner was unable to pay for the medical service which he was requesting. The Acts of 1933 made possible the commitment of an afflicted child to a public hospital in a county in which such child had legal settlement, or to a public hospital in a county adjoining the county in which the afflicted child had legal settlement.

Under these two acts afflicted children, whether sick or crippled, were committed to public hospitals or to the James Whitcomb Riley Hospital for necessary medical treatment and other corrective services and care. The costs of service obtained in this manner were paid by the counties from which said afflicted children were committed.

The Welfare Act of 1936 provides for a new method of admission for crippled children to the James Whitcomb Riley Hospital or hospitals approved by the State Department of Public Welfare for necessary manipulative, operative, and other services and care. This new method of admission is called placement and pertains only to crippled children. In that the Acts of 1921 and 1933 were not rescinded by the Welfare Act, it is still possible that crippled children may be committed either to the James Whitcomb Riley Hospital or other public hospitals or they may be placed either in the James Whitcomb Riley Hospital or other hospitals approved by the State Department of Public Welfare. Placement is effected by the following procedure:

- (1) Application is made to the county department of public welfare for services for a crippled child by the parent, custodian, or guardian of such child.
- (2) The county department of public welfare authorizes the examination of such crippled child by a physician licensed to practice medicine in the State of Indiana for the purpose of securing a recommendation from such physician that the child mentioned in the application may or may not be benefited by treatment.

For such authorized examination the practicing physician is eligible to secure three dollars (\$3.00) from county funds for such service.

- (3) The county department of public welfare conducts an investigation to determine the financial eligibility of the crippled child for the service requested.
- (4) The county department of public welfare, when it is determined that such crippled child is financially eligible to service at county cost, recommends to the State Department of Public Welfare that such child be hospitalized for necessary service.
- (5) The State Board of Public Welfare applies to the administrator of the James Whitcomb Riley Hospital, or the authorities of other approved hospitals, for the admission of the child mentioned in the application.

Although the process of placement may seem to entail many procedures which are cumbersome, it should be stated that, on a physician's recommendation, admissions of eligible children in need of emergency service are quickly arranged by the county department of public welfare through the State Department of Public Welfare.

In developing the program of services for crippled children, it is imperative that the procedure of placement be carried on to such an extent that funds spent by the local political subdivisions will equal the \$55,000 state-in-aid grant which the State of Indiana is eligible to receive from the Children's Bureau of the United States Department of Labor, for these federal funds are secured on an absolute matching basis. In other words, the local political subdivisions of the state, or the state itself, must spend a dollar for every dollar of federal funds secured.

A CRIPPLED CHILD

At the time of the passage of the Social Security and Welfare Acts, the State of Indiana did not have a legal definition of a crippled child and, in that the program concerned the crippled child as differentiated from the sick child, it was necessary to evolve a working definition of a crippled child. Such definition has been formulated with the assistance of representatives of the Indiana State Medical Association, and the state department

classifies a crippled child as any child who comes within the following implied categories:

"A crippled child shall be defined as a child under sixteen years of age who, from any cause, is deprived of the free and normal use of any of his limbs, or who shall be deprived of strength or capability for service due to bone, tendon, joint, or fascial deformity caused by accident, birth injury, or disease; neuro-muscular affection due to disease, birth injury, or other trauma; cicatricial scars which limit motion of extremities; or crippling physical defects, congenital or acquired, that may be benefited by surgical or medical procedures.

"In addition to the crippling conditions implied in this definition, the condition of congenital cataract as well as harelip and cleft palate will be included."

To receive service at public expense such crippled child must have legal settlement (which means twelve months' continuous residence) in the county in which such child makes application for service and, as has been previously stated, the parent, guardian, or custodian of the crippled child must be financially unable to defray the cost of the service he is requesting for the crippled child.

COUNTY MEDICAL ADVISORY COMMITTEES

In an effort to assist county departments of public welfare to determine whether a parent, guardian, or custodian of a crippled child is unable to defray the costs of services requested in caring for such crippled child, the State Department of Public Welfare early in 1937 contacted all county medical societies requesting that a county medical advisory committee be appointed.

County departments of public welfare are legally vested with the right to authorize an examination of a crippled child to determine whether or not he may be benefited by treatment, and the county department also completes a financial investigation to determine the amount of resources of the applicant. When such investigation has been completed and the county department of public welfare is unable to determine whether the applicant is able to pay for the services that he is requesting, the county department of public welfare may then present details of the financial investigation of the applicant to members of the county medical advisory committee. It shall then be the duty of the county medical advisory committee to review the information obtained as a result of the financial investigation, bearing in mind the crippling condition of the child, and to make a recommendation to the county department of public welfare as to whether the child named in the application shall be eligible to receive services at public expense.

In the event that your county medical society has not appointed this county medical advisory committee, an appeal is made at this time for the establishment of such committee and the submission of the names of the members composing such committee to the Division of Services for Crippled

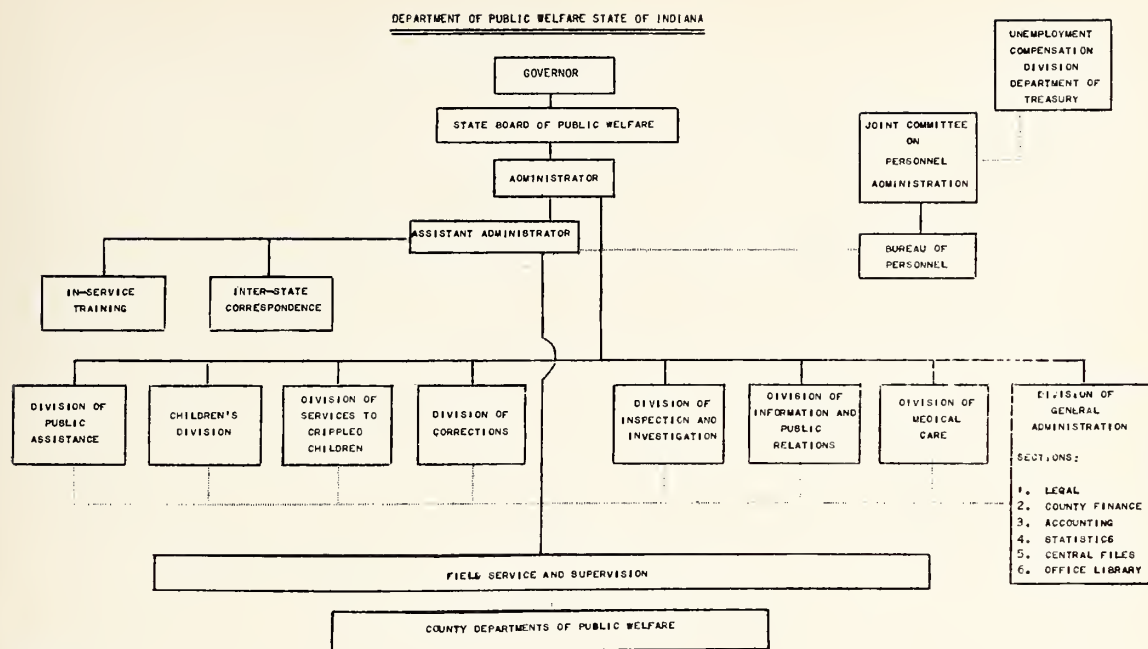


CHART 1.

Children of the State Department of Public Welfare, 141 South Meridian Street, Indianapolis.

ADMINISTRATION

The administration of the program is legally vested in the State Department of Public Welfare, which department has authorized the creation of the Division of Services for Crippled Children, and

this division is under the supervision of a medical director. Chart No. 1 is a functional chart of the State Department of Public Welfare setting forth the position of the Division of Services for Crippled Children. Chart No. 2 is a functional chart of the Division of Services for Crippled Children showing its organization and relation to other official agencies within the state.

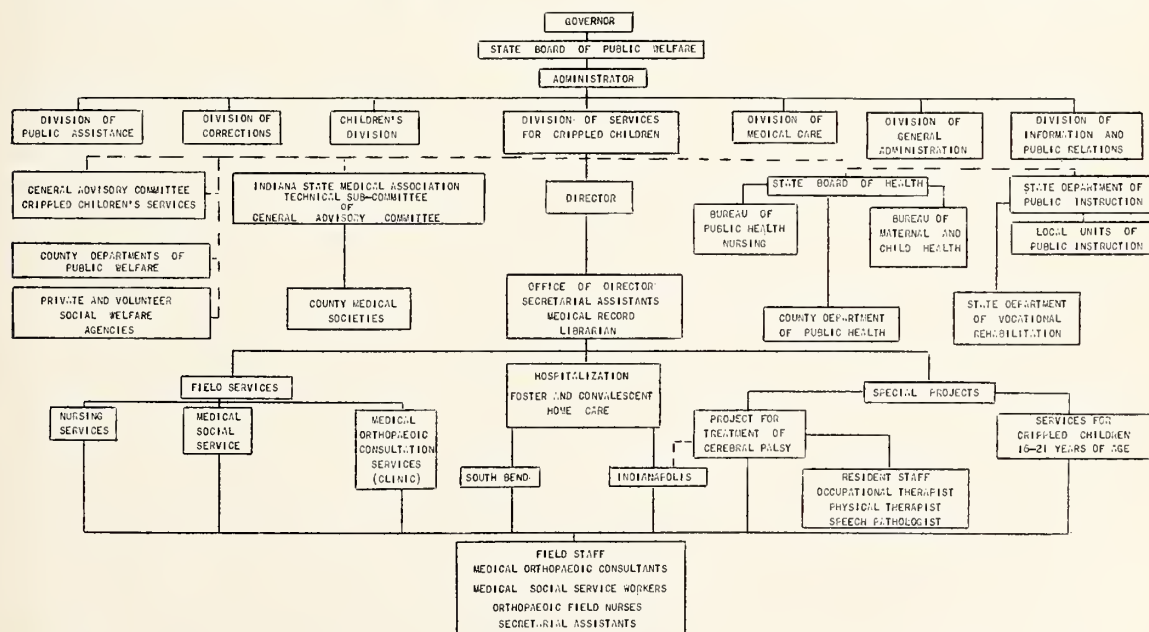


CHART 2.

PERSONNEL

The personnel of the staff of the Division of Services for Crippled Children is composed of professional people who have met requisites of training and education established by the Joint Bureau of Personnel Administration for the Department of Public Welfare and Unemployment Compensation Division, which selects employees on a non-partisan basis.

ADVISORY COMMITTEE

In that the state plan must provide for cooperation with medical, health, nursing and welfare groups, and organizations and agencies of the state charged with administering state laws providing for vocational rehabilitation of handicapped children, it was deemed advisable to appoint a large general advisory committee.

The general advisory committee on Services for Crippled Children lists among its members individuals representing all service groups, state nursing organizations, departments of public instruction and health, sororities, Red Cross, chambers of commerce, Indiana University School of Medicine, legal bodies, American Legion, tuberculosis associations, clergy, fraternal organizations, parent-teacher associations, farm bureau, federation of women's clubs, the Indiana State Dental Association, and the Indiana State Medical Association.

From the Indiana State Medical Association a technical subcommittee of the general advisory committee was appointed by the State Department of Public Welfare and, later, by official action of the State Medical Association, this committee became an official liaison committee between the State Department of Public Welfare and the Indiana State Medical Association. The members of this committee are: Dr. R. L. Sensenich (chairman), South Bend; Dr. I. C. Barclay, Evansville; Dr. F. S. Crockett, Lafayette; Dr. C. J. Clark, Indianapolis; Dr. John H. Green, North Vernon; Dr. Leonard Ensminger, Indianapolis; Dr. Louis D. Belden, Indianapolis.

In developing the State plan, the director of the Division of Services for Crippled Children and the State Board of Public Welfare have depended largely upon the recommendations of this professional committee.

HOSPITAL FACILITIES

The Welfare Act of 1936 provided for placement of crippled children in the James Whitcomb Riley Hospital, as well as for placement of crippled children in private hospitals which the State Board of Public Welfare might select and approve. On recommendation of the technical advisory committee, an additional hospital center in the city of South Bend was established. Hospitals utilized in this hospital center are the Epworth Hospital, the St. Joseph's Hospital, and the Children's Dispensary of the South Bend Hospital Association, which institution acts in the capacity of an out-patient department of the two aforementioned hospitals. These

hospitals are approved members of the American Hospital Association and meet the general requirements recommended by the National Advisory Committee on Services to Crippled Children.

ORTHOPEDISTS AT SOUTH BEND

On the recommendation of the technical subcommittee, Doctors Robert Acker and Walter Baker were selected and approved as orthopedists to act as agents for the Department of Public Welfare and to supervise and perform all manipulative and operative procedures on crippled children placed in any of these three institutions in South Bend. These men receive an honorarium from federal funds for the performance of specified duties as agents of the State Department of Public Welfare.

The South Bend Hospital Center, under the supervision of these orthopedists, has functioned since November 1, 1937, in the treatment of crippled children in the northern area of the state.

CONSULTATION SERVICE

On infrequent occasions it has been necessary that consultant service be rendered to hospitalized crippled children having incidental non-orthopedic complications. In order to meet this need, the technical advisory committee at a meeting April 21, 1938, recommended that provision for payment of such consultant service be incorporated in the State plan for the fiscal year 1938-1939. Such recommendation having received the approval of the State Board of Public Welfare, this provision is being incorporated in the annual State plan which will become effective July 1, 1938. It will be readily seen that the above-described hospital center offers complete treatment, since services of medical men have been made available for care of incidental conditions with which crippled children may be afflicted.

SERVICE AT THE JAMES WHITCOMB RILEY HOSPITAL

Any child placed in the James Whitcomb Riley Hospital is eligible for necessary care by members of the staff on various services of the Riley Hospital. No remuneration is paid to staff members of the James Whitcomb Riley Hospital by the State Department of Public Welfare from federal funds or state funds for the performance of any duties pertaining to the care of crippled children placed in this institution.

STATE REGISTER

Although the State of Indiana now receives an annual state-in-aid grant of \$55,000, federal funds will eventually be obtained on the basis of the number of crippled children, verified by medical authority, which are placed upon the state register. It is, therefore, imperative that the Division of Services for Crippled Children receive from medical sources the name of every crippled child in the State of Indiana, whether he be indigent or non-indigent.

In February of 1937, in an attempt to build up the state register of crippled children, this division

prepared a questionnaire accompanied by an article on Services for Crippled Children, and such questionnaire accompanied an article concerning the Indiana State Plan of Services for Crippled Children in *The Journal of the Indiana State Medical Association*. An appeal was made to the physicians of the state to list the names and crippling conditions of children whom they might have under their care. Reports obtained from the questionnaire were negligible, and other methods of securing the names of crippled children were of necessity devised.

At the present time, in the State of Indiana, ninety-one counties are actively engaged in making an enumeration of all crippled children from birth to twenty-one years of age. This enumeration is proceeding under the auspices of many organizations listed in the general advisory committee. The organizations locating crippled children have been instructed to contact physicians in order to verify the diagnoses of crippling conditions in the event that county medical societies are not directing this enumeration.

LOCATION BY REPORTING OF CONGENITAL BIRTH DEFORMITIES

The Welfare Act of 1936 was amended by the Acts of 1937 to include a section which provides for the reporting of congenital deformities within thirty days after the birth of a deformed child. Blanks for the reporting of such deformities were distributed to some 4,000 doctors in the State of Indiana in January of 1938. Forms for use in reporting such conditions are now incorporated in birth certificate books issued by the State Board of Health, and physicians reporting deformed children may send these blanks direct to the State Department of Public Welfare or they may be forwarded in the usual manner of collection of birth certificates to the State Board of Health which will in turn forward these reports to the State Department of Public Welfare.

EPIDEMIOLOGICAL REPORTS

Through cooperative agreement with the State Board of Health, the names of all children afflicted with acute diseases which will lead to crippling are reported to the State Department of Public Welfare.

REFERRAL OF CRIPPLED CHILDREN BY THE STATE DIVISION OF VOCATIONAL REHABILITATION

A cooperative agreement has been effected between the State Department of Public Welfare and the Division of Vocational Rehabilitation whereby the Division of Vocational Rehabilitation will report any crippled child below twenty-one years of age of whom it has knowledge to the Division of Services for Crippled Children.

DIAGNOSIS OF CRIPPLED CHILDREN

At the present time two methods of diagnosis prevail concerning crippled children who may receive services and care by the placement procedure.

These methods are herewith described:

Diagnosis by private physician. The Welfare Act of 1936 provides that any physician licensed to practice medicine in the State of Indiana may examine a crippled child upon authorization of a county board of public welfare and recommend whether such crippled child may or may not be benefited by treatment.

Diagnosis by orthopedic consultation service. On recommendation of the technical advisory committee, a group of physicians qualified to conduct orthopedic consultation services have been selected and approved by the State Board of Public Welfare. These physicians engaged in the practice of orthopedics are: Dr. Robert B. Acker, South Bend; Dr. H. R. Allen, Indianapolis; Dr. Gordon W. Batman, Indianapolis; Dr. S. H. Crossland, Gary; Dr. William Donald Davidson, Evansville; Dr. Merrill S. Davis, Marion; Dr. Leonard A. Ensminger, Indianapolis; Dr. Wayne R. Glock, Fort Wayne; Dr. Harry E. Kitterman, Indianapolis; Dr. Robert C. Luckey, Wolf Lake; Dr. E. B. Mumford, Indianapolis; Dr. David I. Schwartz, Fort Wayne; Dr. Lacey L. Shuler, Indianapolis; Dr. Charles F. Thompson, Indianapolis.

On recommendation of the technical advisory committee it is proposed that orthopedic consultation services will be offered in the manner of one-day diagnostic consultation services established in advantageously located towns or cities in the various councilor districts of the state. Such consultation services will be offered two or three times annually in each councilor district. On recommendation of the technical advisory committee, an equitable fee schedule has been established for the performance of such consultation services by the above-mentioned physicians.

On the recommendation of the liaison committee, the State Board of Public Welfare has accepted and provided for the utilization of pediatricians in orthopedic consultation services to be conducted during the fiscal year 1938-1939. Pediatricians who will be utilized in consultation services are to be selected from the list of licentiates of the American Board of Pediatrics, and the same fee schedule will prevail for pediatricians as now prevails for orthopedic consultants.

Any crippled child, regardless of financial status, is eligible to be seen in such consultation services. However, no crippled child will receive other services or care under this program unless he meets eligibility requirements as established by the state law.

Although any crippled child will be seen in such orthopedic consultation service, it is preferred that all crippled children to be examined present a signed recommendation from the child's attending physician. In the event that a recommendation is not available, the name of the family physician will be obtained and recommendations of the orthopedic consultant will be forwarded to the attending physician of the crippled child in every instance. It is

not the intent of the State Department of Public Welfare to disturb the patient-physician relationship, but rather to afford the physician a greater opportunity to serve his patient.

It will be pointed out to the attending physician that if he believes the crippled child to be eligible for free service he may advise the parent, guardian, or custodian of the crippled child to contact the director of public welfare of the county in which the parent, or responsible person, resides, to make application for services for a crippled child.

Four such orthopedic consultation services have been conducted since April 26, 1938. These diagnostic services have not been so successful as was expected and it is believed that the lack of success has been due to a lack of understanding on the part of physicians of the state as to how the individual physician as well as his needy patient may benefit by his participation and contribution to such diagnostic service. On recommendation of the liaison committee it is anticipated that no such orthopedic consultation services will be afforded after July 1, 1938, unless the county medical societies to be served by such consultation services have extended an invitation to the State Department of Public Welfare for the conducting of such service.

Your cooperation in making these consultation services successful for the various communities is earnestly solicited and the State Department of Public Welfare will, most gratefully, receive requests from the councilors of the various councilor districts for the conducting of such services.

An invitation is herewith tendered to all physicians to be present at any consultant service conducted by this division.

FIELD CONSULTATION SERVICE ON A CASE BASIS

During the fall of 1937 a mild epidemic of acute anterior poliomyelitis was prevalent in certain sections of the state and it was determined that a consultant service during such epidemics would be acceptable to medical men in general. On recommendation of the technical advisory committee the plan for the next fiscal year incorporates provision for the selection and approval of pediatricians and internists located in advantageous positions throughout the state, who may be utilized in rendering consultant service to physicians who request such service when such physicians may be attending an indigent case of acute poliomyelitis or other acute infectious disease which may lead to crippling. An equitable fee schedule has been established for this service and such fees will be paid from federal funds. Such consultant service will be authorized by the State Department of Public Welfare when a request for such service is made to the Division of Services for Crippled Children.

POST GRADUATE EDUCATION

On recommendation of the liaison committee provision is made in the present budget for the presentation of symposia concerning the prevention of crippling. This part of the program will be

sponsored by the Indiana State Medical Association and presented, if possible, in conjunction with the post-graduate course of the Indiana State Medical Association.

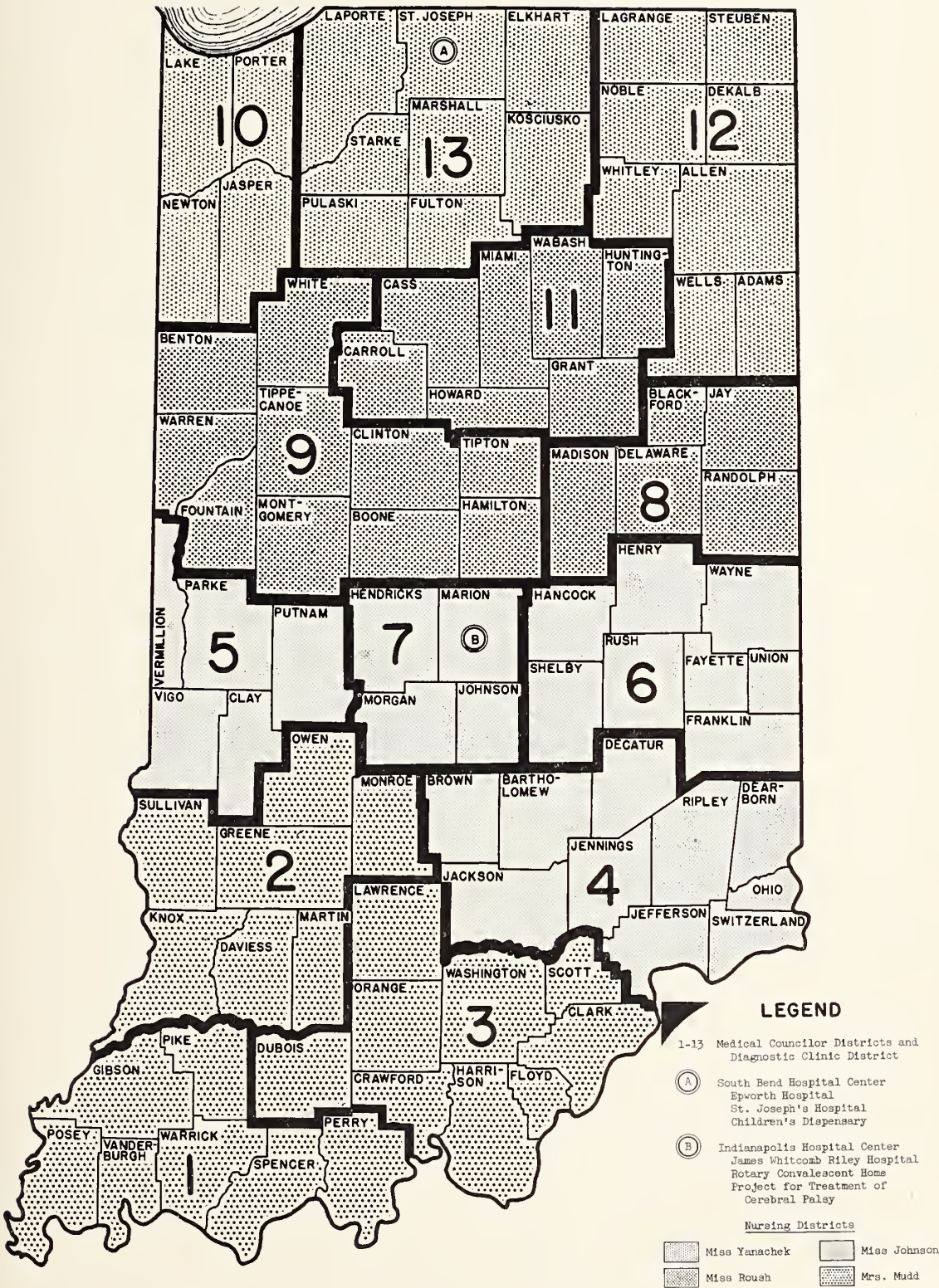
NURSING SERVICE

The Division of Services for Crippled Children now has in the field four public health nurses paid from federal funds who have had special training concerning orthopedic conditions. Illustration No. 3 is a map of the state showing the sections which have been established and assigned to the nurses representing the State Department of Public Welfare. The northern section is assigned to Miss Josephine Yanachek, with offices in the Children's Dispensary at South Bend. This section is comprised of councilor districts 10, 12, and 13. The north-central section, comprised of councilor districts 8, 9, and 11, has been assigned to Miss Frances Roush, with headquarters in the County Department of Public Welfare at Kokomo. The central section, composed of councilor districts 4, 5, 6, and 7, has been assigned to Miss Hazel Johnson, with offices in the State Department of Public Welfare at 141 South Meridian Street, Indianapolis. The southwestern district, councilor districts 1, 2, and 3, is supervised by Mrs. Teresa Mudd, whose office is located with the County Department of Public Welfare at Vincennes, Indiana.

These nurses are to do follow-up service on children released from hospital centers where they have undergone corrective treatment. It will be their duty to contact attending physicians and nursing organizations and other interested individuals concerning the complete rehabilitation of any crippled child whether he is under the supervision of the State Department of Public Welfare, or has received treatment in the James Whitcomb Riley Hospital or other public hospital by commitment. It shall be the duty of these nurses to carry out or assist in carrying out the final orders of staff physicians of the two hospital groups utilized in this plan by contacting attending physicians of crippled children returned to their homes, and transmitting suggestions of the staff to attending physicians.

These nurses will also contact all physicians who have reported children born with congenital deformities, or physicians who have reported children afflicted with epidemiological conditions which may lead to crippling. Contact will be made in an effort to work out a program with physicians in order that indigent children may receive proper corrective services and care. These nursing representatives will also assist in securing requested consultation service if such is deemed necessary by the attending physician concerning indigent children afflicted with acute polio or other acute conditions which may lead to crippling. The nurses will also serve as correlating agents between county medical societies, lay organizations, and county departments of public welfare in the establishment of the orthopedic consultation services above mentioned.

COUNCILOR DISTRICTS
INDIANA STATE MEDICAL ASSOCIATION



MEDICAL SOCIAL WORKERS

Each hospital center has a medical social worker assigned from the staff of the Division of Services for Crippled Children, who is paid from federal funds. It is the duty of the medical social worker to assist the members of the staff of the various hospitals, attending physicians, volunteer and official social agencies including the county departments of public welfare, in an effort to work out a program which will result in social adjustment and complete rehabilitation of crippled children who may come under the supervision of the State Department of Public Welfare.

The social workers are Mrs. Elizabeth Ann Hilgedag, stationed at the James Whitcomb Riley Hospital, and Miss Virginia A. Meek, stationed in the Children's Dispensary at South Bend. These medical social workers, as well as the nurses mentioned in the preceding section, have been established in their positions for the express purpose of assisting physicians in the matter of securing necessary care for financially eligible crippled children. The State Department of Public Welfare will consider your cooperation with these trained individuals and the utilization of their services as an acceptance of the principles of this program.

SPECIAL PROJECTS

Notable among the special projects under this program is the special provision for rendering service to two groups of children who are ineligible to receive service according to the requirements as set forth by the Indiana State laws.

The first group, children above sixteen (16) years of age and below twenty-one (21) years of age, are ineligible to receive services in that they are above the legal age of sixteen years which has been established by the Acts of 1921 and the Acts of 1933.

The second group pertains to children below sixteen (16) years of age who may have moved into the State of Indiana, and have not attained legal settlement which is required for service according to the Acts of 1921 and the Acts of 1933. In many instances families have moved into the state for the purposes of employment, but may have children who are in immediate need of corrective services.

A portion of the federal state-in-aid grant has been reserved for the purpose of extending medical, surgical, manipulative, and other services and care to these two groups of children.

At the present time the State Department of Public Welfare is working with Indiana Diplomates of the American Board of Orthopedic Surgery in an effort to set up a fee schedule which will be used in connection with rendering service to these two groups of children. This work will be done under the supervision of the State Department of Public Welfare by Diplomates of the American Board of Orthopedic Surgery and other orthopedic surgeons, on recommendation of the technical advisory committee.

CEREBRAL PALSY PROJECT

A project which is believed to be of inestimable value is the Project for the Treatment of Cerebral Palsy, housed in the James Whitcomb Riley Hospital. Costs pertaining to personal service, equipment, and supplies are paid for entirely from federal funds received by the state. Indigent children afflicted with cerebral palsy, as well as children afflicted with cerebral palsy whose parents are financially able to pay all costs concerned with the treatment of such patient, are eligible for treatment in this project sponsored by federal funds. The child whose parents are financially stable will not be accepted for treatment in this project unless a written recommendation is received from the attending physician of the child so afflicted that such child be treated in this project. Application for this service, whether on an indigent or paying basis, is made by the parent, guardian, or custodian of the afflicted child to the county department of public welfare in which the child has legal residence.

The establishment of such a project has necessitated the licensing of foster homes for crippled children in the City of Indianapolis, in which children who are receiving treatment in such project may be maintained. These foster homes have also been established in South Bend and in these homes children are maintained who are not in need of constant in-patient service in either of the hospitals utilized in the South Bend Hospital Center.

It is hoped that the above explanation will serve to clarify the functioning of this program as to the objectives to be desired in securing a well-rounded program of services for crippled children in the State of Indiana—in which each physician of the state may be proud to have contributed his medical ability and thoughtful cooperation.

"Every rehabilitated crippled child a potential wage earner."

IF YOU KNOW OF ANY CRIPPLED
CHILDREN IN YOUR COMMUNITY, WILL
YOU NOT REPORT THEM, MENTIONING
THE NATURE OF THE CRIPPLING DEFECT,
WHENEVER POSSIBLE? ADDRESS:

DIVISION OF PUBLIC WELFARE,
SERVICES FOR CRIPPLED CHILDREN,
INDIANAPOLIS INDIANA

Under the Capitol Dome

DR. VERNE K. HARVEY INJURED

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, was seriously injured in an automobile accident, May 16. Dr. Harvey was thrown from his automobile, and suffered a sprained back. His wife, Mrs. Gladys Harvey, suffered cuts and bruises, and their son, Kenneth, suffered bruises. They were taken to Robert W. Long hospital. The accident occurred at Seventy-fifth and Pennsylvania streets in Indianapolis when Dr. Harvey's car collided with a car driven by Eugene Traylor.

BOARD MEETING

Members of the Indiana State Board of Medical Registration and Examination will hold their 1938 semi-annual meeting July twelfth. The session will be in the offices of the Board in the Statehouse.

BOARD EXAMINATIONS

The regular annual examinations of applicants for licenses to practice medicine in Indiana will be conducted by the Indiana State Board of Medical Registration and Examination, June 21, 22, and 23. Examinations, which are conducted by the full board, will be held in the Claypool Hotel in Indianapolis. Approximately 150 medical school graduates have applied to take the examination, according to Ruth V. Kirk, executive secretary of the Board.

JURIES IN MALPRACTICE SUITS

Juries, in deciding malpractice suits, may not set up their own standards of skill and care without the aid of expert testimony or assume facts as true when there is a conflict of evidence, according to a decision handed down by the Indiana Appellate Court.

The court reversed a decision against a Hoosier physician in a malpractice damage suit in which the trial judge included among his instructions to the jury one instruction which gave the jurors the right to set up standards themselves. This instruction said that "while the general rule is that where the question as to whether a surgical operation is skillfully performed or whether the care and attention following the operation was proper, are questions of science to be determined from the evidence of medical men, yet this general rule is not applicable in all cases but jurors of ordinary intelligence, sense and judgment, although not skilled in medical science, may be capable of reaching a conclusion, without the aid of expert testimony as to whether it was proper treatment to perform an

operation on a patient's eye where some cutting and scraping is done with an unsterilized and undisinfected instrument and then leave the eye unsterilized and undisinfected and exposed to the elements and without any covering or bandage of any kind to protect it from the sunlight, wind and possible germs in the air."

Discussing the instruction the Appellate Court said that "this instruction not only authorized the jury to set up its own standard of skill and care without the aid of expert testimony, but it also permitted the jury to base this standard upon an assumption of certain facts as true, concerning which there was a sharp conflict in the evidence. From the language used, the jury was permitted to assume, as a fact, that the appellant (the physician) did some cutting and scraping in appellee's eye with an unsterilized and undisinfected instrument and then left the eye unsterilized and undisinfected and exposed to the elements without proper covering or dressing, and from these facts set up its own standard of care and skill without the aid of expert testimony."

"DOC QUIZ" ASKS—

Question 1: How efficient are modern serologic tests for syphilis?

Question 2: What diseases resemble genital primary syphilis?

Question 3: What is the proper method for diagnosing primary syphilis?

Question 4: What are the six diagnostic maxims in primary syphilis?

Question 5: What are the six diagnostic maxims in secondary syphilis?

(Answers on page 324)

Error: In the "Doctor Quiz" column for May appeared the question "Does my ability to pass a 26 sound rule out a stricture?" To this the answer was printed: "No. The patient may have a stricture of large calibre which a sound will not detect. Always test for stricture with a silk bougie." This should have been "... test for stricture with a silk *bougie à boule*."

The Indiana State Medical Association has 2,960 members in good standing now. Are your 1938 dues paid? If not, the July Journal will not be sent to you.

Deaths

S. A. Gifford, M.D., of Laurel, died April twenty-sixth, aged eighty-two years. Dr. Gifford had practiced at Laurel for more than fifty years. He was the son of Dr. Thomas A. Gifford. He graduated from the Medical College of Ohio, Cincinnati, in 1879, and was a member of the Fayette-Franklin County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Theodore B. Templin, M.D., of Gary, died April twenty-sixth, just after returning from a ten days' vacation trip to Hot Springs, Arkansas. Dr. Templin was fifty-eight years old. He had spent his entire professional life in Gary, and was Gary's first health commissioner. He practiced in association with Dr. George S. Greene from 1918 until February of this year when he went into partnership with his son, Dr. David Templin. He was a graduate of Jefferson Medical College, Philadelphia, in 1904, and was a member of the Lake County Medical Society, the Indiana State Medical Association, the American Medical Association, and a Fellow of the American College of Surgeons.

Ulysses Grant Kelso, M.D., of Vincennes, died May eleventh, aged seventy-one years. He graduated from the Hospital College of Medicine, Louisville, in 1898, and was a member of the Knox County Medical Society, the Indiana State Medical Association and the American Medical Association. He had served as president of the Knox county society.

Samuel Gilbert Jump, M.D., of Muncie, died May eleventh, aged sixty-five. Dr. Jump died in a Lafayette hospital after becoming ill while marching in a parade in Lafayette. He had served as health commissioner for Delaware county for many years. Dr. Jump graduated from the Medical College of Indiana, Indianapolis, in 1900, and was a member of the Delaware-Blackford County Medical Society, the Indiana State Medical Association and the American Medical Association.

W. F. Schrader, M.D., of Fort Wayne, died April fourteenth. Dr. Schrader was seventy years old. He graduated from the Fort Wayne College of Medicine in 1894.

Byron N. E. Spees, M.D., of Glenns Valley, died May fourth, aged seventy years. He had practiced at Glenns Valley since 1891. He graduated from the Central College of P. and S., Indianapolis, in 1897.

John H. Fears, M.D., Negro physician of South Bend, died April ninth, aged sixty-one years. Dr. Fears graduated from Ohio Medical University, Columbus, in 1903, and started his practice in South Bend the same year. He was a member of the St. Joseph County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

James H. Hatfield, M.D., of Indianapolis, died May tenth, after a long illness. He was seventy-three years old, and had retired from active practice. Dr. Hatfield graduated from the Hospital College of Medicine, Louisville, in 1897, and was a member of the Indianapolis Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association.

Robert J. Kemper, M.D., of Indianapolis, died April third. He was fifty-eight years old. Dr. Kemper had practiced in Indianapolis for thirty years. His early practice was in association with Dr. John Oliver. He graduated from the Indiana University School of Medicine in 1908. He was a member of the staffs of St. Vincent's and Methodist hospitals in Indianapolis, and was also a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

James E. Luckey, M.D., Wolf Lake, died in a Fort Wayne hospital, May fourteenth. Dr. Luckey had practiced in Noble County forty-six years. He was seventy-three years old. He graduated from the Medical College of Indiana, Indianapolis, in 1892. In 1930 he established the Luckey hospital at Wolf Lake and his sons, Dr. Harold Luckey and Dr. Robert Luckey, have been associated with him. Dr. Luckey was an active member of the Noble County Medical Society, the Indiana State Medical Association, the American Medical Association, and the Northeast Indiana Academy of Medicine.

News Notes

The new \$250,000 ward added recently to the Logansport State Hospital was dedicated May twelfth. The new building will provide quarters for 219 mental patients.

Election of officers for the Floyd County Auxiliary resulted as follows: president, Mrs. Morton Wolfe; vice-president, Mrs. James Baxter, Jr.; president-elect, Mrs. Parvin Davis; secretary, Mrs. John Gentile, and treasurer, Mrs. A. N. Robertson.

Dr. Richard G. Burman has opened offices in Jeffersonville for the general practice of medicine.

Dr. Joseph C. Smith, Bedford dentist, has moved from Bedford to Terre Haute where he will practice with members of the Associated Physicians and Surgeons Clinic.

Dr. J. F. Boulware has moved from Louisville, Kentucky, to Bloomington, Indiana, where he conducts a surgical practice.

Dr. William F. Molt, of Indianapolis, attended the annual sessions in Atlantic City of the American Bronchoscopic Society, the American Laryngological Society, the American Laryngological, Rhinological, and Otological Society.

Dr. John P. Birdzell has become associated in practice with Dr. J. W. Iddings, of Crown Point.

Dr. R. L. Sensenich, of South Bend, has been re-appointed as a member of the board of directors of Healthwin Hospital.

Dr. and Mrs. Homer Woolery, of Bloomington, recently returned from a six months' vacation on the Pacific coast and in Honolulu.

Dr. Bernhard Erdman has moved to 48A West Ohio Street, Equitable Building, Indianapolis.

Dr. and Mrs. George Collett, of Crawfordsville, sailed May seventh for Europe.

Dr. H. B. Shoup, who has practiced at Sharpsville for twenty-two years, is moving to Greentown to continue his practice.

Miss Ethelyn Hector, of Terre Haute, and Dr. Robert A. Staff, of Richmond, were married in Indianapolis, April sixteenth.

Dr. Arthur L. Records has been appointed to the city health board of Franklin to fill the vacancy created by the death of Dr. D. R. Saunders.

Dr. Charles J. McIntyre was named president of the Marion County Tuberculosis Association at the annual meeting of the organization's board of directors, April twenty-eighth, in Indianapolis.

Dr. E. Rogers Smith, of Indianapolis, has been appointed chief surgeon of the Indianapolis Speedway to succeed Dr. H. R. Allen, who has resigned after twenty-nine years of continued service. Dr. Allen organized the first Speedway hospital at the time of the first race in 1909.

Fifteen physicians enrolled in a five-day post-graduate course in optics and refraction at the Home Lawn sanitarium, Martinsville, May second. The course was in charge of Dr. C. E. Gillespie, of Seymour, and Dr. Ralph Woods, of LaSalle, Ill.

The Sixth District Medical Society elected the following officers: president, Dr. W. U. Kennedy, Newcastle; secretary-treasurer, Dr. J. E. Ferrell, Fortville. The next meeting of the society will be held in May, 1939, at Connersville.

The sixteenth annual catfish dinner of the Fountain-Warren County Medical Society will be held June second at the Methodist Church in Covington. The scientific program will be held in the court house auditorium with Dr. William N. Wishard, Jr., of Indianapolis, as guest speaker.

At the annual meeting of the Eighth District Medical Society in Muncie, May tenth, Dr. C. V. Rozelle, of Anderson, was elected president and Dr. L. G. Montgomery, of Muncie, was elected secretary-treasurer.

Norman H. Davis, ambassador at large and adviser to the State Department on European Affairs, was appointed in April by President Roosevelt as chairman of the American Red Cross. Mr. Davis succeeds the late Dr. Cary T. Grayson.

Open house and dedication ceremonies were held at the Witham Memorial Hospital in Lebanon, May 12th for the new wing of the building which, with new equipment, cost approximately \$160,000. The federal government paid 45 per cent of the building costs, Boone County paying 55 per cent. The capacity of the hospital has been doubled, and beds are now available for sixty patients.

Dr. C. W. Rutherford, of Indianapolis, lectured on "Treatment of Ocular Industrial Trauma, Senile and Other Degenerative Changes of the Eyeball, and Etiology and Treatment of Uveitis" before the post-graduate group in ophthalmology at the University Hospital in Ann Arbor, Michigan, April 25 and 26.

The Committee on Scientific Research of the American Medical Association invites applications for grants of money to aid in research on problems bearing more or less directly on clinical medicine. Preference is given to requests for moderate amounts to meet specific needs. Application forms and further information may be obtained by addressing the committee at 535 North Dearborn Street, Chicago.

The U.S. Public Health Service has published a pamphlet designed for the physician to give to his syphilitic patients so that the patient will continue his treatment. It may be secured from the Superintendent of Documents in Washington D.C., for \$1.00 per 100 copies. In smaller quantities they are five cents each. The pamphlet is entitled "Syphilis. Its Cause—Its Spread—Its Cure!"

The Indianapolis Society of Neurology and Psychiatry was organized in January with Dr. Larue D. Carter as president and Dr. John H. Greist as secretary. The present membership is twenty-one, and regular meetings are being held. The purpose of the society is to afford an opportunity for the presentation of cases and papers dealing with this special field. Membership is limited to members in good standing in the Marion County Medical Society.

Mr. J. B. H. Martin, administrator of the Indiana University medical center, was elected president of the Indiana Hospital Association at a meeting held May fourth in connection with the annual conference of the Tri-State Hospital Assembly in Chicago. Earl C. Wolf, business manager of the Indianapolis City Hospital, was chosen president-elect; Mrs. R. F. Rains, of King's Daughters Hospital, Madison, was elected vice-president, and V. I. Sandt, of Fairview Hospital, Laporte, was re-elected treasurer.

The twenty-third annual meeting of the American Association of Industrial Physicians and Surgeons will be held concurrently with the Midwest Conference on Occupational Diseases at the Palmer House in Chicago, June 6, 7, 8, and 9, 1938. Programs of the meeting are available for any physician interested and the sessions will be open to any practicing physician. For copy of program, address Mr. A. G. Park, 540 N. Michigan Avenue, Chicago.

Dr. M. R. Lohman, of Fort Wayne, assumed his duties as president of the Indiana Tuberculosis Association at the meeting in Indianapolis, April twenty-second. Woodson S. Carlisle, of South Bend, was made first vice-president; Dr. W. C. McFadden, Shelbyville, second vice-president; Mrs. John Gubbins, Muncie, secretary, and Dr. E. M. Amos, Indianapolis, treasurer.

INDIANAPOLIS CITY HOSPITAL ONCOLOGIC CLINIC

The second yearly report of the Oncologic Clinic of the Indianapolis City Hospital since the acquisition of a supply of radium for treatment purposes has been made and indicates that, during the year 1937, 188 new cases were cared for, ninety-two of which received radium treatment either wholly or in conjunction with electro-surgery and deep x-ray therapy. During 1937, 1,026 clinic visits were made in the tumor clinic. A statistical chart has been prepared giving details of the type of cases, mode of treatment, and end results up to date. A complete record is being maintained so that a more definite report concerning results of treatment may be made at the end of five years.

The Chamber of Commerce of the United States in cooperation with the American Public Health Association this year made awards to cities for the most effective community wide programs for Syphilis Control and Tuberculosis Control. First award was given to Tacoma, Washington, in the Syphilis Control Contest. In the Tuberculosis Control Contest, the winner was Detroit, Michigan. In the ninth annual city health conservation contest, with 263 entries, Boston, Mass., won first award in Group I (cities over 500,000 population); Louisville, Ky., and Providence, R. I., shared first awards in Group II (250,000 to 500,000 population); Hartford, Conn., won first award in Group III (100,000 to 250,000 population); Sacramento, Calif., received first award in Group IV (50,000 to 100,000 population); Greenwich, Conn., received first award in Group V (20,000 to 50,000 population), and in Group VI (less than 20,000 population) first award went to Englewood, N. J. The Committee specified that these awards are not prizes for the healthiest cities, but are awards for the most effective efforts to meet local health problems.

Indiana University News Notes

NEW CLINICAL BUILDING DEDICATED

Dedicatory exercises for the new Clinical Building of the Indiana University Medical Center in Indianapolis were held Saturday, May 14, with Governor M. Clifford Townsend, President Herman B. Wells, Indiana University, President Emeritus W. L. Bryan, Indiana University; Dr. Dean Lewis, professor of surgery, Johns Hopkins University, and Dean W. D. Gatch, Indiana University school of medicine, as the principal speakers.

The dedication, held at 4 p. m., climaxed an informal program in which several hundred visitors and many university officials inspected the new \$600,000 addition to the Medical Center. Student nurses and hospital attaches explained the use of the modern technical equipment and the cancer and x-ray clinics designed to bring to Indiana the most modern methods of treating diseases.

Governor Townsend presided at the program and linked the growth of the Medical Center with the principle of democratic government and termed the Center and the new building "monuments to better health and a stronger state."

"Frequently we hear from other sections of the world criticism of democracy as a workable institution," he said. "Whenever I read of a dictator attacking democracy, I think of this great Medical Center we have in Indianapolis established by the people under democratic government."

"Recognizing that government has a deep responsibility for the welfare and security of the people," Governor Townsend said, "the gradual development of public health service and public hospitalization has been made possible by the foresight and thoughtfulness of the medical profession."

"In our modern society, we are trying to solve the problem of public health from both ends—to cure sickness and eliminate poverty. We have tried to meet the health needs of the people without interfering in any way with the private practice of medicine."

Commending the combination of academic and practical training offered students at the center, Governor Townsend paid tribute to Dean Gatch.

"There is one individual to whom we all are indebted for this fine building," he said. "He has dreamed, planned and fought for this building and brought to its construction all the experience of a trained physician."

Dr. Bryan was introduced by Governor Townsend as "one of Indiana's greatest friends, one

of Indiana's greatest citizens and one of Indiana's greatest loved public servants over many years."

"We are prone to judge the world and its inhabitants by what they do at the worst," Dr. Bryan told the audience. "What some governments and some people everywhere are now doing at their worst makes you think that they must be inhabited by the legion of devils that once inhabited the swine in Galilee. The worst that men do is something we have to face and fight."

Designed as a "nerve center" for its surrounding campus units, the new Clinical building is adapted to the latest developments in the field of medicine and contains more than 1,000,000 cubic feet. The six-story brick structure is completely fire proof and was financed by WPA and state funds.

One of the departments to be housed in the new building will be an enlarged cancer and x-ray clinic with all the latest highly developed technical devices designed to arrest and treat the disease. Two hundred milligrams of radium, an element more expensive than the finest diamond, has been purchased for the clinic.

The following seven pre-medical students of Indiana University have been pledged to the Phi Chi professional medical fraternity: Thomas L. Dittmer, Kouts; Welbon D. Britton, Beech Grove; Alan D. Houser, North Liberty; David J. Smith, Evansville; John Schechter, Indianapolis; Robert S. Jordan, Indianapolis; Joe Jewett, Carmel.

The pledges were announced at the annual spring banquet of Phi Chi for which the principal speakers were Dr. Bert E. Ellis of the Indianapolis unit of the I. U. medical school and Dr. Daniel Bower, Indianapolis physician. Members of the Phi Chi chapter in Indianapolis attended the meeting.

A total of 3,814 patients were admitted to the James Whitcomb Riley Hospital, a unit of the Indiana University Medical Center, during the past year. For the first time in the hospital's 140 year history the institution is "caught up" with its long waiting list for its major services, J. B. H. Martin, I.U. Medical Center administrator, reported. Emergency cases can now be accepted at once, he said. Non-emergency cases can be handled within 30 days of receipt of applications in the major departments. A waiting list, however, of several hundred child patients suffering from ear, nose and throat ailments remains.

Dr. W. D. Gatch, dean of the Indiana University Medical School, reported widespread research activities in medicine and surgery. A noteworthy advance in the treatment of spastic paralysis at the hospital was announced. An "iron lung" was added during the year just in time to aid in saving a child's life. It has been used extensively since.

The 3,814 child patients spent 78,975 days in the hospital. The county average was 41.5 patients.

Reducing operating costs of \$45,019.92 were reported through reducing the average stay per patient. James W. Carr, secretary of the Riley Memorial Association, announced that wills now under administration in Indiana elsewhere will add about \$150,000 to the funds of the Riley hospital and the Riley Memorial Association. Hugh McK. Landon, Indianapolis, was reelected president of the Riley Memorial Association for his seventh consecutive term.

The admissions by counties were as follows:

Adams	10	Lawrence	45
Allen	35	Madison	55
Bartholomew	61	Marion	1,189
Benton	9	Marshall	6
Blackford	5	Martin	8
Boone	88	Miami	36
Brown	16	Monroe	110
Carroll	33	Montgomery	32
Cass	24	Morgan	107
Clark	11	Newton	8
Clay	27	Noble	4
Clinton	50	Ohio	5
Crawford	3	Orange	32
Daviess	15	Owen	60
Dearborn	9	Parke	17
Decatur	35	Perry	24
DeKalb	14	Pike	16
Delaware	32	Porter	4
Dubois	5	Posey	--
Elkhart	36	Pulaski	14
Fayette	20	Putnam	41
Floyd	12	Randolph	25
Fountain	19	Ripley	18
Franklin	5	Rush	47
Fulton	7	Scott	3
Gibson	20	Shelby	53
Grant	26	Spencer	4
Greene	64	Starke	5
Hamilton	26	Steuben	2
Hancock	36	St. Joseph	11
Harrison	4	Sullivan	37
Hendricks	86	Switzerland	8
Henry	42	Tippecanoe	35
Howard	33	Tipton	31
Huntington	15	Union	4
Jackson	22	Vanderburg	147
Jasper	1	Vermillion	20
Jay	15	Vigo	28
Jefferson	15	Wabash	27
Jennings	46	Warren	5
Johnson	116	Warrick	6
Knox	44	Washington	15
Kosciusko	21	Wayne	46
Lagrange	4	Wells	5
Lake	148	White	27
LaPorte	18	Whitley	9

INFECTIOUS MONONUCLEOSIS—BLUM

(Concluded from page 299)

2. The clinical picture of which the glandular, anginose and febrile type can be distinguished, is unusually varying.

3. The correct diagnosis is based on the characteristic blood changes and the serologic test.

4. The disease is generally self limited and the prognosis absolutely favorable.

5. The importance of correct recognition of infectious mononucleosis lies primarily in its differentiation from more serious diseases such as

"DOC QUIZ" ANSWERS—

(Questions on page 319)

Answer 1: Modern serologic tests are 99.75 percent specific; 95 percent sensitive in the diagnosis of untreated syphilis.

Answer 2: Gonorrhea, chancroid, herpes proiesitidis or simplex, scabies, venereal warts, carcinoma, granuloma inguinale, lymphopathia venereum, balanitis gangrenosa, traumatic lesions, pyogenic lesions, secondary syphilis, late syphilis—gumma.

Answer 3: A. Dark-field or surface serum; if negative, repeat at least three times on consecutive days before local treatment. If surface dark-field is negative, do dark-field of aspirated serum from lesion's base, or dark-field of aspirated material from lymph node. If you have no dark-field microscope, send the patient at once to someone who has; or send a specimen to the nearest laboratory.

B. Do serologic test at first visit. If any of these tests are positive, treat at once. If all are negative, do serologic test follow-up for 3 months, weekly for first month, every two weeks thereafter.

Answer 4: Six diagnostic maxims in primary syphilis:

1. Any genital sore in male or female is possibly primary syphilis until proved to be otherwise.
2. Any indolent lesion anywhere on the body (especially lips, tonsils, fingers) which fails to heal in two weeks may be primary syphilis.
3. The diagnosis of primary syphilis is a laboratory, not a clinical, procedure.
4. Do **not** treat suspected primary syphilis locally until repeated dark fields are negative.
5. Do **not** give antisiphilitic treatment on suspicion; prove the diagnosis.
6. There is reason for urgent haste in diagnosis; **hours count!**

Answer 5: Six diagnostic maxims in secondary syphilis:

1. Do blood serologic follow-up—3 months—on any lesion which was possibly primary syphilis.
2. For any generalized skin eruption—**do a serologic test.**
3. For any sore mouth or throat which does not heal in 10 days—**do a serologic test.**
4. For any unexplained patchy loss of hair—**do a serologic test.**
5. For any iritis or neuroretinitis—**do a serologic test.**
6. For any vague bone pains or polyarticular arthralgia—"acute, subacute, or chronic infectious arthritis"—**do a serologic test.**

diphtheria, acute leukemia, typhoid fever and others.

I am indebted to Drs. W. G. Crawford and P. J. Bronson of Terre Haute for permission to use the clinical data.

221 SOUTH SIXTH ST.

Societies — Institutions

PROPOSED INDIANA INTER-PROFESSIONAL HEALTH CONFERENCE

A preliminary meeting was held in the Union Building, Purdue University, on April 27th for the purpose of perfecting a tentative program for the creation of an Indiana Inter-professional Health Conference. The purpose of the Conference is to enhance the quality of public health service and to study the various civic, health and professional problems with the view to rendering better health service to the citizens of Indiana. Two previous preliminary meetings were held at Purdue University, the first on December 2, 1937, and the second one on February 3, 1938.

At the last meeting a proposed Constitution was accepted for submission to the various Member-Associations for their consideration and adoption. The following associations are represented in the Conference by officially appointed delegates: Indiana State Medical Association, Indiana State Dental Association, Indiana Pharmaceutical Association, Indiana Hospital Association, and the Indiana State Nurses' Association.

The officers of the Conference are: Dean C. B. Jordan of Purdue University, Chairman; Dr. F. T. Romberger, Lafayette, Vice-chairman; and Professor H. W. Heine, Purdue University, Secretary-Treasurer. The Executive Committee is composed of the following: Dr. F. T. Romberger, Lafayette, Chairman, representing the Indiana Medical Association; Dr. A. R. Ross, Lafayette, representing the Indiana State Dental Association; Mr. C. E. Nelson, Hammond, representing the Indiana Pharmaceutical Association; Mr. Edgar Blake, Jr., Gary, representing the Indiana Hospital Association; and Miss Beatrice Short, Indianapolis, representing the Indiana State Nurses' Association.

The proposed Constitution will be submitted to the Member-Associations at their annual meetings for their consideration and adoption.

The meeting was attended by twenty-two individuals including, besides appointed delegates from the various organizations, Dr. Harvey of the State Board of Health, Mr. Thomas Hendricks of the Indiana Medical Association, Dr. F. S. Crockett of Lafayette, and Dean Jordan.

INDIANAPOLIS SOCIETY OF NEUROLOGY AND PSYCHIATRY

On Tuesday evening, January 25, 1938, at the Indianapolis Athletic Club, a meeting was held for the purpose of organizing the Indianapolis Society of Neurology & Psychiatry. Membership in the society is limited to members in good standing of the Marion County Medical Society and the roster of charter members was as follows:

Dr. Max Bahr, Dr. Walter Bruetsch, Dr. Larue D. Carter, Dr. Charles Cottingham, Dr. Murray DeArmond, Dr. William Dieter, Dr. L. H. Gilman, Dr. Robert Glass, Dr. John H. Greist, Dr. E. Vernon Hahn, Dr. Frank Hutchins, Dr. Alberta Jones, Dr. E. W. Mericle, Dr. Paul Merrell, Dr. Philip Reed, Dr. Thomas P. Rogers, Dr. George Sandy, Dr. W. A. Sandy, Dr. Joseph Skobba, Dr. E. Rogers Smith, Dr. Exie Welsch.

Officers were elected to serve from January to May as follows: President—Dr. Larue D. Carter; Vice President

—Dr. Exie Welsch; Secretary-Treasurer—Dr. John H. Greist.

Three scientific meetings have been held. The first was a clinical pathological conference with the demonstration of four brains, the second a clinical review and discussion of the Insulin Shock Treatment of Schizophrenia and the third was a discussion of the diagnosis and management of head injuries.

The purpose of the organization is to afford an opportunity for the presentation of papers and cases in the field of neurology and psychiatry and promote the exchange of information and ideas among the members of the medical profession practicing in these fields.

JOHN H. GREIST, M.D., *Sec.-Treas.*

INDIANA MATERNAL HEALTH LEAGUE

In order to acquaint the physicians of Indiana regarding the activities of the Indiana Maternal Health League, the following facts are submitted.

This organization has now been in operation for four years and is the guiding force behind the four clinic centers located in the following cities:

Indianapolis—Maternal Health Center, 307 N. Penn. St., Room 426.

Evansville—Maternal Health League of Evansville, 517 Bond St.

Fort Wayne—Maternal Health League of Fort Wayne, Box 104.

South Bend—Maternal Health League of South Bend, 129 S. Lafayette St.

In addition to the above clinic centers there are now more than forty doctors throughout the state to whom patients may be referred in their respective communities.

Admission Requirements—Any married woman living with her husband will be given advice for the sake of her health or her well-being, who is unable to pay a private physician's fee for this service, and who is referred to the center by a physician, a recognized social agency or by a former patient. In addition the patient is required to have two living children but exceptions are occasionally made at the discretion of the physician in charge.

A statistical report of the Indianapolis Center follows: (From 1934 to 1937 inclusive)

1. Number of patients seeking advice.....	1624
a. White	1219
b. Colored	405
2. Number of patients referred by:	
a. Physicians	200
b. Social agencies.....	1319
c. Old patients.....	105
3. Indications for contraceptive advice	
a. Medical	224
b. Economic and social factors.....	1315
c. Child spacing.....	85
4. Number of physicians referring patients.....	65
5. Number of patients given contraceptive advice.....	1574
6. Number not advised—referred to other clinics because of pregnancy on first visit or some surgical contraindication.....	50

Pregnancy Record of New Patients

1. Total number of gestations.....	\$142
a. Living children.....	6334
b. Average living children per patient.....	3.9
c. Dead children.....	816
d. Total abortions—	
1) spontaneous	660
2) induced	332

Interested physicians are invited to attend the above clinics for the purpose of acquiring information and instruction in contraceptive techniques.

A. S. JOHNSON, M.D., *Medical Director,*
Indiana Maternal Health League.

SECOND DISTRICT MEETING

The Second Indiana Councilor District Medical Association met May 12th at McCormick's Creek State Park near Spencer, Indiana, Dr. R. H. Pierson presiding.

The program included a talk by Dr. Paul Harmon, of Indiana University, on "Two Important Physiological Principles," papers by Dr. Stuart Combs, of Terre Haute, on "Coronary Occlusion," Dr. Russell Henry, of Indianapolis, on "Diagnosis of Pulmonary Tuberculosis," Dr. R. C. Myers, of Hillcrest Hospital, Vincennes, on "Treatment of Pulmonary Tuberculosis."

Dinner was served at six o'clock at the Park Hotel during which time speeches were made by Dr. Herman Baker, president of the State Association, Dr. H. B. Mettel of the Board of Health, and Mr. Thomas Hendricks, state secretary.

Eighty members and guests were present.

This was probably the most interesting and enjoyable meeting the district has had in many years.

J. S. BROWN, M.D., *Secretary*.

* * *

THIRD DISTRICT MEDICAL SOCIETY

The Third District Medical Society met at the French Lick Springs Hotel, May 4, at 10:30 a. m.

Speakers were:

George Dillinger, M.D., French Lick. Subject: "Urinary Infections."

Harry S. Andrews, M.D., Louisville, Ky. Subject: "A Resume of Pediatric Practice."

J. R. Hamilton, M.D., Mitchell. Subject: "Management of Eclampsia."

Robert M. Dearmin, M.D., Indianapolis. Subject: "Acute and Chronic Otitis Media."

Following the luncheon meeting, Dr. C. J. Clark of Indianapolis talked on "Diagnostic and Prognostic Tests in Heart Disease."

Dr. Herman M. Baker of Evansville, president of the Indiana State Medical Association, and Mr. Thomas A. Hendricks, executive secretary of the Association, attended.

It was decided to hold the next meeting of the society at Scottsburg.

* * *

SIXTH DISTRICT SOCIETY

More than seventy-five members of the Sixth District Medical Society attended the annual meeting in the Richmond-Leland hotel, May fifth.

G. W. Gustafson, M.D., of Indianapolis, spoke at the morning session on "Normal Delivery and Breech Presentation." Moving pictures were shown.

The morning session included a tour of Richmond, the State Hospital, and the Wayne County historical museum.

Dr. H. Close Hesselstine of Chicago was the principal speaker in the afternoon.

Dr. L. T. Meiks of Indianapolis spoke on "Care of the Newborn and Premature Infant," and moving pictures on "Treatment of Asphyxia Neonatorum" were shown.

The noon banquet speaker was Dr. Patrick H. Weeks, physician for the Indiana State prison, whose subject was "High Lights in the Big House of Mystery."

Visiting women were entertained by wives of local physicians.

Dr. W. U. Kennedy was elected president of the society. Dr. J. E. Ferrell of Fortville was made secretary-treasurer. The next meeting will be held in May, 1939, at Connersville.

EIGHTH DISTRICT SOCIETY

With an attendance of approximately 125 at the afternoon session and 250 at the evening meeting, the Eighth District Medical Society held the largest meeting in point of attendance in its history. The meeting was held at the Hotel Roberts in Muncie, May tenth.

Dr. C. V. Rozelle of Anderson was elected president, succeeding Dr. E. H. Clauser of Muncie, and Dr. L. G. Montgomery of Muncie was elected secretary-treasurer, succeeding Dr. Rozelle. Vice-presidents are the presiding officers of the medical societies of Delaware-Blackford, Randolph, Madison and Jay counties.

Dr. Frank H. Lahey, of Boston, read a paper at the evening meeting on the subject "The Diagnosis and Newer Methods of Treatment of Peptic Ulcer." X-ray pictures and slides illustrated his talk.

Dr. Byrl R. Kirklin, formerly of Muncie, now of the Mayo Clinic, showed slides of X-ray pictures and discussed the differences between benign and malignant ulcers of the stomach.

Afternoon speakers included Dr. Kirklin and Dr. Clarence F. G. Brown of Chicago who talked on "Diagnosis and Medical Treatment," and Dr. John L. Lindquist of Chicago whose subject was "Differential Diagnosis and Surgical Treatment." Dr. Lahey led the discussions in the afternoon.

The dinner meeting in the evening was held jointly with the Muncie Academy of Medicine. Dr. L. G. Montgomery presided at the evening meeting.

* * *

TENTH DISTRICT MEDICAL SOCIETY

The Tenth District Medical Society held its meeting April 8, 1938, at the "Spa" on U. S. 20 in Porter county, east of Gary. The program was as follows:

3:00 p. m.—Reuben L. Kahn, Ph.D., of the University of Michigan. Subject: "Interpretation of Some Paradoxical Reactions in Syphilis; Role of Skin Immunity and Allergy."

4:00 p. m.—Percival Bailey, M.D., University of Chicago. Subject: "Technic and Results of Operation for Brain Tumor."

5:00 p. m.—N. C. Gilbert, M.D., Northwestern University, Chicago. Subject: "Cardio-Renal Diseases."

6:00 p. m.—Dinner at the Spa.

7:00 p. m.—F. H. Falls, M.D., University of Illinois. Subject: "Management of Eclampsyogenic Toxemia." (Illustrated.)

This was a very good meeting. Because of the weather, blizzard and sleet, attendance was only sixty.

CARL M. DAVIS, M.D., *Secretary*.

* * *

ELEVENTH DISTRICT SOCIETY

The fifty-ninth semi-annual meeting of the Eleventh Indiana Councilor District Medical Association was held May 18 at Logansport with headquarters at the City Hall.

A golf tournament in the forenoon was followed by a scientific program in the afternoon. Papers were read by Dr. Ross C. Ottinger of Indianapolis on "Pitfalls in the Diagnosis of Acute Abdominal Conditions," by Dr. G. F. Kempf of Indianapolis on "Uses and Abuses of Sulfanilamide," and by Dr. S. D. Malouf, Peru, on "Acute Perforations of the Gastro-Intestinal Tract."

A banquet was served at the Logansport Country Club in the evening when Dr. R. N. Harger of Indianapolis was the principal speaker.

Visiting ladies were entertained at the Country Club in the afternoon.

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

February 23, 1938

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

The release, "1938—A Measles Year," approved for publication in Monday, February 28, papers.

The release, "Prevent Pneumonia This Month," approved for publication in Monday, March 7, papers. This approval was given with the understanding that certain corrections were to be made in the release.

Report on medical meeting:

Feb. 16—Parke-Vermillion County Medical Society, Clinton, Ind. "Sterilization of the Indigent and Illiterate." (12 present.)

The following tribute in regard to the late Doctor E. D. Clark, president of the Indiana State Medical Association in 1937, and a former member of the Bureau of Publicity, was prepared by the Bureau:

"As president of the Indiana State Medical Association during the critical year just closed, Doctor Edmund Dougan Clark came to that office well prepared through long years of training and experience both as a physician and a soldier to assume medical leadership with decision, courage, judgment, and foresight.

"Medicine was rooted deeply within him. Not only were his father and grandfather physicians, but many of his host of relatives, all the way from the Idaho Rockies to Rye, New York, were doctors. In fact, numerous 'Dr. Clarks,' all cousins of our own Doctor Clark in one degree or another, have practiced in both the old and the new world, in all cases with honor and in many cases with more than local distinction. His uncle Dougan Clark, who practiced in Richmond during the early seventies, was for several years professor of materia medica and therapeutics at the old Indiana Medical College. He traveled from Richmond each week and spent the day in Indianapolis conducting classes. He was a man of profound general as well as medical knowledge. One of his cousins, Charles Clark, who graduated in 1874, from the Indiana Medical College, afterwards practiced in London, England. Another distinguished relative was prominent as a surgeon in Philadelphia.

"Although always interested in one way or another in medical organization affairs, it was not until 1932 when Doctor Clark became a member of the Bureau of Publicity of the Indiana State Medical Association that he gave a great amount of his time to state medical organization work. From that year until the completion of his term as president only a few weeks ago, state medical affairs became his first interest outside of his practice and his home. His services as a member of the Bureau of Publicity were most valuable. His sound judgment in dealing with the many complicated problems of public and professional relationships, his straight conception of ethical matters, his ability to render outspoken criticism without personal antagonism, made him a most valuable member of the Bureau and enabled him to assume the duties as president of the Association with a clear insight to all medical organization problems. In facing these problems Doctor Clark was guided by a single principle,—

'Because right is right to follow right
were wisdom in the scorn of consequence,'

for with him, right was right, wrong was wrong, and there was no middle path."

A member of the Bureau was chosen to read the tribute at the memorial service for Doctor Clark which was to be held Wednesday, February 23, at the Methodist Hospital, Indianapolis.

A letter was received from the president of the Woman's Auxiliary to the Indiana State Medical Association in answer to a request from the Bureau concerning information in regard to the Woman's Auxiliary.

(Continued on page xxii)

PROFESSIONAL PROTECTION



A DOCTOR SAYS:

"I deeply appreciate the protection afforded by your company and the whole-heartedness with which you went to battle for me."

THE
MEDICAL PROTECTIVE COMPANY
OF FORT WAYNE, INDIANA
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The Most Interesting . . .

Subject to talk about is
MONEY . . . YOUR
MONEY. Are you satisfied
with your financial progress? Let us show you our
simple time-tested PLAN
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March 31, 1938

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D., and T. A. Hendricks, executive secretary.

The article, "Why Take a Chance with Cancer?" released for publication in Saturday, March 26, papers.

The release, "Laughter—The Real Spring Tonic," approved for publication in Saturday papers, April 9.

Reports on medical meetings:

March 8—Tippecanoe County Medical Society and Parent Teacher Association. "The Summer Round-Up of Pre-School Children." (70 present.)

March 15—Hancock County Medical Society, Greenfield. "Heart." (75 present.)

March 17—Montgomery County Medical Society, Crawfordsville. Discussion of Medical Care for Farm Security Clients. (20 present.)

The Bureau instructed the secretary to write to the president of the Woman's Auxiliary and make arrangements for a definite date for representatives from the Auxiliary to meet with the members of the Bureau.

A member of the Bureau of Publicity made the following report to the Bureau in regard to the advertisement which appeared in the New York *Herald Tribune* and which was sponsored by the American Social Hygiene Association:

"Last year a New York reporter asked many people on the street whose advice would they seek if they contracted a venereal disease. Only a small minority of those questioned named the family doctor and another small minority the reputable specialist. The quack—the advertised remedies, and the suggestions by friends came in ahead of the usual medical methods. I think this ad is an attempt to reach the man in the street, particularly the uneducated New Yorker, and as such serves its purpose. I believe the case of syphilis is overstated but one has to expect some of that in drives."

REVIEW OF SYPHILIS—OFFUTT, ET AL

(Bibliography concluded from page 293)

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³⁴ Indiana State Board of Health: Circular—Prevent Venereal Disease.

³⁵ *Literary Digest*: Youth Declares War on Syph. Jan. 1, 1936.

³⁶ *Time*: Feb. 14, 1938, p. 47-48.

³⁷ Personal Communications with Practicing Physicians.

³⁸ Haggard, H. W.: Devils, Drugs, and Doctors, Blue Ribbon Books, Inc., 1929.

LOCAL SOCIETY REPORTS

BOONE COUNTY MEDICAL SOCIETY members met at Lebanon at the Witham Hospital, May tenth, for a noon luncheon meeting. Elza O. Rogers, attorney, discussed "Malpractice in Bone Surgery." Hospital board members and nurses were guests of the society. Attendance numbered thirteen.

* * *

CASS COUNTY MEDICAL SOCIETY members and members of the Cass County Dental Society met at Logansport for a dinner meeting, April twenty-first. Approximately forty physicians and dentists attended. Dr. B. E. Ellis of Indianapolis was the principal speaker for the meeting.

* * *

DAVIESS-MARTIN COUNTY MEDICAL SOCIETY members met at the Elk's Lodge, in Washington, April twenty-sixth, for a dinner meeting. Dr. Paul D. Crimm of Evansville talked on "Tuberculosis."

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY and members of the dental society held their annual joint meeting at the Reagan Hotel in Lawrenceburg, April twenty-eighth.

* * *

DE KALB COUNTY MEDICAL SOCIETY held a meeting at the Hotel Auburn, May fourth, at noon. Routine business and round table discussions composed the program.

* * *

DELAWARE BLACKFORD COUNTY MEDICAL SOCIETY members met at the Hotel Roberts in Muncie, April twentieth, to hear Dr. Harold M. Trusler talk on "Treatment of Extensive Burns." Dr. Trusler's talk was illustrated with lantern slides. There were fifty-eight in attendance.

Dr. Homer Life of Muncie was made a member of the society.

* * *

ELKHART COUNTY MEDICAL SOCIETY members held their annual meeting in the Hotel Elkhart, April twenty-first, with fifty-five members and eight or ten guests in attendance. Papers and discussions occupied the afternoon hours and following a dinner in the evening, Dr. W. D. Gatch of Indianapolis talked on "Surgical Prognosis." Afternoon speakers included Dr. Robert Glass, Dr. George Garceau, and Dr. Carl Hablich, all of Indianapolis.

* * *

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY met at the McFarlan Hotel in Connersville, May tenth. Dr. Russell Henry of Indianapolis talked on "Tuberculosis of Childhood."

At the April twelfth meeting of the society, Dr. Lacey Shuler of Indianapolis talked on "Injuries About the Knee Joint."

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY members met April nineteenth in the Chamber of Commerce Building, to hear Dr. Stanley P. Reimann of Philadelphia talk on "Diagnosis of Secondary Breast Tumors and Relation of Hormones to Cancer." This was a joint meeting with the St. Joseph County Medical Society, with 92 in attendance.

At the April twenty-sixth meeting, case reports were presented by Drs. David I. Schwartz, B. M. Edlavitch, H. C. Kraft and Doster Buckner. There were twenty-eight in attendance at this meeting.

At the May third meeting, held at the Lutheran Hospital in Fort Wayne, case reports and discussions were presented by Drs. M. H. Popp, J. T. Short, G. T. Bowers, H. E. Glock, and A. N. Ferguson. Attendance numbered forty-nine.

GIBSON COUNTY MEDICAL SOCIETY members held a meeting in Emerson Hotel, Princeton, May ninth, with Dr. E. B. Mumford of Indianapolis as principal speaker. Dr. Mumford's subject was "Treatment of Fractures of the Wrist, Ankle, and Hip." Attendance numbered twenty-six.

* * *

HENDRICKS COUNTY MEDICAL SOCIETY met at Crawley's Hall in Danville, April twenty-second. J. T. Waldo, D.D.S., talked on "Growths and Diseases of the Mouth." Attendance numbered thirty-one. This was a joint meeting of physicians and dentists and their wives.

* * *

HENRY COUNTY MEDICAL SOCIETY held a meeting at Newcastle, April twenty-first. Dr. J. H. Stygall, of Indianapolis was the principal speaker, his subject being "Pneumothorax." Attendance numbered twenty-one.

* * *

INDIANAPOLIS MEDICAL SOCIETY and Indianapolis Dental Society members held a joint meeting at the Indianapolis Athletic Club April nineteenth. Dr. R. W. Bunting, dean of the University of Michigan Dental School, was principal speaker.

At the May third meeting, the program was sponsored by the Indianapolis chapter of the American Heart Association. Papers were read by Drs. Paul Iske, O. B. Norman, C. J. Clark, George S. Bond and Edgar F. Kiser.

* * *

JAY COUNTY MEDICAL SOCIETY members heard Dr. Matthew Winters of Indianapolis talk on "Vomiting in Infants and Children," at the meeting held at the Portland Country Club, May sixth.

* * *

KNOX COUNTY MEDICAL SOCIETY and dental society members held a joint meeting at the Jewel Cafe in Vincennes, May tenth. Dr. J. H. Warvel of Indianapolis talked on "Symptoms and Treatment of Diabetes Mellitus." Attendance numbered thirty-five.

* * *

KOSCIUSKO COUNTY MEDICAL SOCIETY members held a meeting at the Hotel Hays in Warsaw, May tenth. Dr. George Garceau of Indianapolis was the principal speaker, his subject being "Fractures of the Ankle, Elbow and Hip." Attendance numbered thirty. This was a joint meeting with the Marshall County society.

* * *

LAKE COUNTY MEDICAL SOCIETY met May twelfth for a dinner meeting at St. Catherine's Hospital, East Chicago. Dr. H. W. Orr of Lincoln, Nebraska, talked on "Diagnosis and Treatment of Osteomyelitis Caused by Bone Injuries." This was the last meeting of the season.

* * *

LAPORTE COUNTY MEDICAL SOCIETY met at the American Restaurant in LaPorte, April twenty-eighth, for a special meeting called to make arrangement to carry out the survey on the provision of medical care. Attendance numbered eighteen.

At the April twenty-first meeting, held in Michigan City, officers of the LaPorte county Tuberculosis Association told of the aims and purposes of their organization. Attendance numbered thirty.

* * *

MADISON COUNTY MEDICAL SOCIETY members held their regular monthly meeting May sixteenth. They were dinner guests of Mrs. Kehrer at the Kehrer Hospital. Following dinner, Dr. J. H. Stygall of Indianapolis held a tuberculosis clinic.

* * *

MONROE COUNTY MEDICAL SOCIETY held a meeting May ninth at the Hotel Graham in Bloomington. Dr. William C. MacCarty of the Mayo Clinic was the speaker. His subject was "Cancer and Cancer Control." In cooperation with the Women's Field Army, the society sponsored a public meeting in the I.U. Chemistry building auditorium in the evening when Dr. MacCarty was the speaker.



EXERCISE FOR BOWEL REGULATION

The patient who is unable to exercise or adhere to a suitable diet will appreciate the aid of Petrolagar to maintain a regular bowel movement. Petrolagar softens hard stools and assists the bowel to function normally. Its pleasant flavor, devoid of the oily taste associated with plain mineral oil, makes Petrolagar very easy to take. Prescribe Petrolagar for bowel management, it's "Council Accepted." Petrolagar Laboratories, Inc. • Chicago, Ill.

*Petrolagar . . . Liquid petrolatum
65 cc. emulsified with 0.4 Gm. agar
in a menstruum to make 100 cc.*



MUNCIE ACADEMY OF MEDICINE members met at the Hotel Roberts, April twelfth, to hear Dr. Roy W. Scott, of Cleveland, whose subject was "Clinical Aspects of Arteriosclerosis with Special Emphasis on Hypertension in Coronary Disease."

* * *

NORTHEASTERN INDIANA ACADEMY OF MEDICINE held a meeting at the Kendall Hotel in Kendallville, March thirty-first. Dr. Laurance Hines and Dr. J. Roscoe Miller, of Chicago, talked on "Coronary Occlusion, Diagnosis, and Treatment."

* * *

NORTHEASTERN INDIANA ACADEMY OF MEDICINE met in the Kendall Hotel, April twenty-eighth, for a dinner meeting. Principal speaker was Dr. Leslie L. Veseen of Chicago whose subject was "Value of X-ray in Urologic Diagnosis."

* * *

PARKE-VERMILLION COUNTY MEDICAL SOCIETY officers for 1938 include: President, F. G. Greene, Bloomingdale; Secretary-treasurer, S. C. Darroch, Cayuga.

At the March sixteenth meeting of the society held at the Vermillion County Hospital in Clinton, Dr. Brandt Steele, of Indianapolis, talked on "Pneumonia."

* * *

PARKE-VERMILLION COUNTY MEDICAL SOCIETY met at the Vermillion County Hospital in Clinton, April twentieth, to hear Dr. Francis Smith of Indianapolis talk on "Prevention, Diagnosis and Treatment of Diphtheria." Attendance numbered fourteen.

* * *

PORTER COUNTY MEDICAL SOCIETY members met in Valparaiso, March twenty-ninth, to hear Dr. R. B. Jones, of Laporte, discuss "Common Sense in Medicine." Attendance numbered seventeen. Two moving pictures films showing pediatric anomalies and some diagnostic and therapeutic procedures were run.

* * *

PUTNAM COUNTY MEDICAL SOCIETY members were invited to be guests at the meeting of the Monroe County Medical Society, May ninth, in Bloomington.

* * *

RANDOLPH COUNTY MEDICAL SOCIETY members met April eleventh at the Randolph County Hospital to hear Professor Jeremiah Carter of Riley Hospital, Indianapolis, talk on "Child Psychology for the General Practitioner." Attendance numbered fifteen.

* * *

SHELBY COUNTY MEDICAL SOCIETY members met in Shelbyville, March twelfth, with Dr. Ross Ottinger of Indianapolis as principal speaker. Dr. Ottinger's subject was "The Glands of Internal Secretion."

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY members met at the Hotel LaSalle in South Bend, March thirtieth, to hear Dr. W. D. Gatch, of Indianapolis, talk on "Some Observations on Wound Healing." Attendance numbered seventy.

At the March twenty-second meeting, held in the Jefferson Plaza, South Bend, speakers were Dr. R. B. Acker, Dr. D. A. Bickel and Dr. C. E. Savery. Attendance numbered forty-two. The society voted to employ an executive secretary temporarily, for a six months period, later to be considered for permanency. It was also decided to establish an office for the society.

At the April fourteenth meeting, Dr. D. H. Condit talked on "Interesting Obstetrical Statistics," and Dr. L. F. Fisher talked on "Silicosis." Attendance numbered thirty-five. At this meeting the society passed a resolution to incorporate the society.

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY met in South Bend at the Jefferson Plaza, April twenty-sixth. Principal speakers were Drs. Alfred Ellison and C. C. Terry who talked on "Differential Diagnosis of Surgical Conditions of the Lower Abdomen" and "Osteomyelitis of the Os Calcis." Attendance numbered forty.

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at Lincoln Lodge and St. Elizabeth Hospital in Lafayette, April twelfth, to hear Dr. Harry E. Mock, of Chicago, discuss the conservative treatment of gall bladder disease and appendicitis. Attendance numbered sixty. A clinic was held in the afternoon and a dinner meeting in the evening.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at Lincoln Lodge and St. Elizabeth Hospital, Lafayette, May tenth. A clinic was held in the afternoon and in the evening Dr. E. P. McCulloch of Cleveland, Ohio, talked on "Newer Developments in Endocrine Therapy." Sixty were present at the clinic and at the dinner meeting.

* * *

VANDERBURGH COUNTY MEDICAL SOCIETY members met at Evansville, April twelfth, for a dinner meeting at the Vendome Hotel. Attorney Albert Stump, of Indianapolis, attorney Albert Veneman, of Evansville, and Dr. Minor Miller, of Evansville, were principal speakers. This was a joint meeting of the bar association and the medical society, and attendance numbered one hundred.

* * *

WABASH COUNTY MEDICAL SOCIETY and members of the Woman's Auxiliary met at the Wabash County Hospital, May fourth. Dr. Louis Segar of Indianapolis discussed "Immunization and Vaccination of Children," and "Infant Feeding."

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY members met at the Richmond-Leland Hotel in Richmond, April fourteenth. Dr. E. L. Cartwright, of Fort Wayne, was the principal speaker, his subject being "Some Problems in Proctology." Attendance numbered thirty-five.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY met at the Richmond-Leland Hotel in Richmond, May twelfth. Dr. C. R. K. Johnston of Cleveland, Ohio, talked on "Allergy." Special emphasis was placed upon nasal allergy. Thirty-five were in attendance.

* * *

WHITLEY COUNTY MEDICAL SOCIETY met in Columbia City, March eighth, to hear Dr. E. M. Van Buskirk and Dr. C. J. Cooney, of Fort Wayne, discuss the subjects of "Silicosis" and "Nephrolithiasis."

At the April twelfth meeting, Dr. W. F. Englebert, of Fort Wayne, presented a paper on "Inhalation Anesthesia."

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASES

Monthly Report, April, 1938

Disease	April 1938	March 1938	Feb. 1938	April 1937	April 1936
Tuberculosis	228	111	148	163	215
Chickenpox	311	389	524	451	218
Measles	5745	4245	2435	1209	105
Scarlet Fever	597	668	780	1030	1235
Smallpox	351	173	175	55	16
Typhoid Fever	29	3	3	3	4
Whooping Cough	128	94	86	257	166
Diphtheria	95	135	218	37	47
Influenza	48	74	83	475	378
Pneumonia	90	77	107	145	202
Mumps	131	88	129	278	407
Meningitis	6	8	6	18	23
Trachoma	15	1	1	0	0
Undulant Fever	11	2	0	0	0
Hydrophobia	2	0	0	0	0
Tularemia	2	0	0	0	0
Silicosis	1	0	0	0	0
Ophthalmia Neonatorum	1	0	0	0	0

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

During April and May, Mrs. Fred Wishard visited every auxiliary in the State. Not alone were they delightful social events, but they were very profitable to the organization.

THE MADISON COUNTY AUXILIARY sponsored the formal opening of St. John's Hospital Nurses' Home in Anderson, April 19th. It was the largest social function there in recent years. More than 1,000 guests registered. Those receiving were the state auxiliary president, members of the local auxiliary, Sisters of the Holy Cross, and local club women.

The Victoria Guild recently organized by the Auxiliary honors a valiant, spiritual and civic leader, Sister Victoria (Mary O'Keefe) who died December 9, 1919. Mrs. W. H. Gante is the first president of the Guild. Mrs. E. E. Hunt is president of the auxiliary.

Topics for the year's program included: "Travelers in Europe," "Syphilis," "Pneumonia," "Public Health and Education," "Diphtheria," "Maternal and Infant Mortality," and "Crippled Children."

VIGO COUNTY AUXILIARY reports that in October a business meeting was held and a talk heard on "Hospitals and Care of Children in Scandinavian Countries." In November there was a bridge party from which eighty dollars was cleared for a student loan fund. In January the annual dinner was held at the Terre Haute House. A review of "Yes, My Darling Daughter" was presented. In February there was a dramatic tea at the Department Club. The auxiliary members served as hostesses for the Health Show sponsored by the Vigo County Medical Society. Dr. Wiedemann, a seasoned traveler, lecturer and photographer, gave an illustrated talk. In May a luncheon meeting was held at the home of Mrs. W. D. Asbury in Terre Haute. Mrs. J. V. Richart presided. Mrs. M. B. VanCleave, state president-elect, gave an interesting talk. Guests were Mrs. Wishard, Mrs. Tinney, Mrs. Bock, Mrs. Rozelle and Mrs. Jump. These state officers gave reports of their work.

THE ST. JOSEPH COUNTY AUXILIARY has a membership of \$9. Mrs. P. J. Birmingham is president. This year "Hygeia" has been placed in 36 public schools for the entire year. Twenty-five dollars was donated to cancer research in St. Joseph County and a \$5 tuberculosis bond was secured. Six meetings were held during the year. Dr. L. F. Fisher spoke on "The Use of Radium and X-ray in the Treatment of Cancer" at the November meeting in the Hotel LaSalle, South Bend.

DELAWARE-BLACKFORD COUNTY AUXILIARY celebrated their tenth anniversary April 19 with a tea at Maria Bingham Hall, Muncie. Mrs. I. N. Trent gave a history of the Auxiliary. Mrs. Arthur Rettig is president. Twenty members were present.

FLOYD COUNTY AUXILIARY entertained with a one o'clock luncheon meeting at the New Albany Country Club for their guests Mrs. Fred Wishard, Mrs. W. E. Tinney and Mrs. Charles Voyles. Twenty-one members were present.

We express our sympathy for Mrs. S. G. Jump whose husband died May eleventh. Mrs. Jump is state chairman for "Hygeia."

For your vacation meditation—these lines from the Sanskrit, a language older than the Greek:

LISTEN TO THE SALUTATION OF THE DAWN

Look to this day
For it is life, the very life of life.
In its brief course lie all the varieties
And realities of your existence.
For yesterday is but a dream,
And tomorrow is but a vision,
But today well lived makes
Every yesterday a dream of happiness
And every tomorrow a vision of hope.
Look well, therefore, to this day;
Such is the salutation of the Dawn.

Mrs. W. F. HUGHES, *Press Chairman.*

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BOOKS

BOOKS RECEIVED

THE PRACTICE OF UROLOGY. By Leon Herman, B. S., M.D., Professor of Urology, University of Pennsylvania, Graduate School of Medicine; urologist to the Pennsylvania Hospital and to the Bryn Mawr Hospital; consulting urologist to the Methodist Episcopal and Burlington County (New Jersey) Hospitals. 923 pages with 504 illustrations. Cloth. Price \$10.00. W. B. Saunders Company, Philadelphia and London, 1938.

* * *

THE NEW INTERNATIONAL CLINICS. ORIGINAL CONTRIBUTIONS; CLINICS; AND EVALUATED REVIEWS OF CURRENT ADVANCES IN THE MEDICAL ARTS. Edited by George Morris Piersol, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa. Volume I. New Series one (old 48th), 1938, J. B. Lippincott Company, Philadelphia, Montreal, New York, 1938.

* * *

PNEUMONIA AND SERUM THERAPY. By Frederick T. Lord, M.D., Clinical Professor of Medicine, Emeritus, Harvard Medical School; Members of the Board of Consultation, Massachusetts General Hospital; and Roderick Heffron, M.D., Field Director, Pneumonia Study and Service, Massachusetts Department of Public Health, 1931-1935. 148 pages. Cloth. Price \$1.00. The Commonwealth Fund, 41 East 57th Street, New York, N. Y., 1938.

* * *

WHY GROW OLD? A Guide Book for the Man who Seeks to Remain Physically and Mentally Young. By Frank S. Caprio, M.D., Psychiatrist, Veterans Administration (Marion, Indiana), and Owsley Grant, M.D., Clinical Professor of Urology, University of Louisville Medical School. 204 pages. Cloth. Maxwell Droke, Publisher, Indianapolis, 1937.

BOOKS REVIEWED

A MEANDERING HOOSIER. By Hugh A. Cowing, M.D., of Muncie, Indiana. 257 pages. Cloth. Scott Printing Company, Muncie, 1937.

This book reflects the lifetime impressions of one who is an active physician, poet and philosopher, and who has aptly been called a Hoosier Oliver Wendell Holmes. The book includes a collection of verses and sketches which Indiana physicians in particular will find interesting. In addition to his boyhood memories, Dr. Cowing has told of his vacation travels to remote parts of this country and of his voyages to other countries. One section of the book is devoted "To the Children" and contains a collection of children's verse, illustrated by the author's drawings.

The book is light and witty and tells of the life of a physician beginning in Indiana's horse and buggy days. It will provide pleasant reading for all Hoosiers.

THE PRACTICE OF UROLOGY. By Leon Herman, B.S., M.D., professor of Urology, University of Pennsylvania. 923 pages. Cloth. Price \$10.00. W. B. Saunders Company, Philadelphia and London, 1938.

All too frequently textbooks contain a comprehensive study of the subject material without evaluating the integral parts. There is nothing more disheartening when one tries to find something definite in a textbook than to come across a list of things which is too broad to allow the reader to gain any useful information. For example: In discussing the cause of hematuria, an author may list a great number of causes. Then he gives little heed to those points in diagnosis which will help the reader to have an opinion about any one case in particular. A urologist, of course, would know that a complete urological examination should be made unless the symptoms point definitely toward some trouble which is, beyond a doubt, of a trivial nature. The general practitioner, however, would be entirely lost without some definite information and that information is to be found in Doctor Herman's book. Hematuria is mentioned here solely as an example. Most other subjects which should be included in a textbook of urology are handled so as to give the reader some useful and definite information. A part of that usefulness is to be gained from noting certain fads and fancies which Dr. Herman states may well be discarded and to this reviewer that is an important feature of a textbook. An example of this may be found in his statement concerning urinary antiseptics: "Those familiar with the early extravagant claims for other urinary antiseptics will maintain a skeptical attitude toward . . . newly developed chemicals for the treatment of urinary infections." The conservative attitude of Doctor Herman strikes one as being evidence of a decided value to the book which is full of good illustrations and good English. The book's nine hundred pages are regarded by this reviewer as being very useful.

DOCTORS, I SALUTE. By Emilie C. Conklin, of Indianapolis. 92 pages. Cloth. Price \$1.50. Light and Life Press, Winona Lake, Indiana, 1938.

Suggested by one prominent physician as an appropriate addition to every physician's reception room, this book of poems by Mrs. Conklin has been dedicated to "the healers of the world, those whose lives are dedicated to the relief of pain and distress." The author had many years' experience as a medical social worker and her book pays tribute to doctors, nurses, hospital executives, social workers, veterinarians, and dentists. There are a few general poems that are appealing such as the one entitled "Friendship":

Friendship is like the oak tree
That bends with wind and shock
And with each storm and tempest
Clings closer to the rock.

Love is a morning glory
That fades before the day;
Friendship, the strong green ivy
That holds when walls decay.

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COMMENTS ON TRAFFIC HAZARDS

MURRAY N. HADLEY, M.D.

Indianapolis

Approximately forty years ago there began, with weak and faltering steps, a new industry that was destined to grow to mammoth size and profoundly affect modern economic and social life. This new industry was the application of motor power derived from the combustion engine to the problem of transportation.

The substitution of gasoline for horsepower, upon which mankind had relied for centuries for transportation, reduced the demand for farm products and threw a basic industry, agriculture, out of balance. Governmental and other agencies are now busily engaged in an effort to restore this balance, with what success remains to be seen. With a waning agricultural income, the farmer, finding a diminishing demand for his products, has left the farm and migrated to the large industrial centers to seek employment in the factories whose products have deprived him of his former source of income.

Coincident with the development of the motor driven vehicle was the building of roads upon which this new industry could find a place for the use of its product. Not since the Roman Empire built its enduring highways to maintain contact with its far flung possessions has there been such extensive construction of roads as we see now. As the automobile has become more powerful and speedier, the roads have become smoother and straighter.

With all these powerful forces in operation in modern society, it is not surprising that we should find certain hazards involved in their development that would menace life and health. Unfortunately these hazards are an integral part of the successful development of the automobile industry, and any solution of the problem of safety must recognize this fact.

The automobile industry has based its appeal to the consumer on the power and speed of the motor which it sells, and speed, under the conditions it is exercised, is the major cause of fatal automobile accidents. Ample statistical evidence

from many reliable sources attests this fact. With the entire automobile industry geared to the principal of more power and more speed, it seems futile to look to the industry for relief.

It is true that under the stress of economic depression, smaller and less expensive cars are greatly in the majority, but under the hood is that same 80 to 90 to 100 horsepower motor.

There is a third party to this triad of potential destruction, and that is the man or woman at the wheel. Good roads and high powered motors are innocent combinations without the abuses of the man at the wheel.

The automobile industry can say with complete candor, "We have built a beautiful and useful product and you have excellent roads on which to use it; if you have fatal accidents, it is your fault and not ours." It is entirely possible to teach the man at the wheel all the essential factors of safe driving by an appeal to reason and logic. In addition he learns it by the process of trial and error. But the difficulty arises as soon as a man gets behind a wheel, with 80 horsepower at his command with only a slight pressure of his foot on the gas pedal and he ceases to be guided by reason, and acts almost wholly under the stimulation of his emotions. His ego is stimulated by a feeling of power derived by his control over the motor; he is pleased by the beauty of smooth and comfortable motion; he is lulled by the rhythmic hum of the motor. All these things play upon his emotions and he ceases to exercise the caution which guides a man whose actions follow the exercise of reason and judgment.

This excited ego of the man behind the wheel is an interesting but wholly understandable psychological phenomenon. It is a basic factor in shaping the pattern of the emotional reactions and conduct of the driver of an automobile. This emotional pattern is wholly abnormal and foreign to the individual's usual conduct.

It is a matter of common observation that the driver of an automobile loses his regard for the

rights of others, ceases to be courteous to his fellow drivers and pedestrians, and becomes impatient and arrogant. The unwritten law of the road, made by the drivers of automobiles, is strongly tinged by the ethics of the jungle. Neither the other man's rights nor his own safety is a matter of much concern to the man whose ego has been so distorted.

In the final analysis, then, we have three factors involved in the problem of traffic hazards: powerful and speedy motors, good roads, and the man at the wheel.

It is improbable that the automobile industry will voluntarily alter the construction of motors by limiting possible high speeds. It is within the range of possibilities that public opinion, shocked by the daily spectacle of killed and injured, may demand that speed limits be greatly reduced, and force the manufacturers to alter the construction of the motor, making high speeds impossible. It is also possible that the supply of cheap fuel in the form of gasoline will become limited, so that the entire automobile industry including type of motor will be revolutionized. As for the roads, barring a complete economic collapse, they will be made straighter and smoother. Grades will be cut and curves eliminated, thus making the roads more dangerous. Statistics show that more fatal accidents occur on straight, unobstructed roads

than on curves and grades, for such roads encourage high speeds.

What about the third factor—the driver? You can cut the speed by legal enactment, and altered construction of the motor; you can improve roads; but you can't do very much with the man at the wheel. The enforcement of laws designed to protect him, and efforts to educate him for his own protection against traffic hazards have so far proved futile.

It remains to be seen whether the intensive campaign of instruction to children in safety will materially improve present hazards on the road. This perhaps offers the best results as far as education is concerned, and should receive encouragement from all possible sources.

The relation of the medical profession to traffic hazards is similar to that of war hazards. Its major function in war has been to treat and rehabilitate the injured. So in traffic hazards the profession has assisted in the establishment of wayside first aid stations on main traffic lanes, in the development of shock wards in many hospitals and in improved methods of treating the seriously injured. Such activities have no doubt saved many lives, but they have never prevented a single accident, and prevention is the only hope of safety.

HIGHWAY ACCIDENTS*

JEWETT V. REED, M.D.

Indianapolis

The medical and surgical aspects of highway accidents may be discussed under two headings: (1) those accidents that result from some physical defects in the drivers; (2) the traumas resulting from these accidents.

We see examples of the first group in those cases where a car runs off the road or hits an obstruction, the driver is injured or killed and there is no apparent reason for the accident. Many cases of this kind are due to the driver becoming acutely ill or losing consciousness which is the real cause of the accident but which may be followed by any form of trauma. With such a series of events it is very easy to conclude erroneously that the loss of consciousness and perhaps some of the other symptoms are entirely the result of the accident. In such accidents without apparent cause it is important to examine the patient very carefully to determine if possibly there was some pre-existing abnormality; and if he is killed, a post-mortem examination should be made, as the finding of a cause for the accident may be of medico-legal importance. We know that persons occasionally lose

control of themselves while driving because this has happened in the presence of a fellow passenger who, realizing the situation, obtains control of the car and prevents an impending accident.

The conditions that may lead to a sudden loss of consciousness in an apparently healthy person are the following: Spontaneous cerebral hemorrhage (in the young from a brain tumor and in the old from apoplexy), cerebrospinal syphilis, epilepsy, acute acidosis, acute uremia, narcotic poisoning, acute alcoholism and acute painful conditions that might cause the patient to faint. Attacks of dizzy spells, fatigue, and loss of sleep are causes for such accidents. According to the law in Indiana, a truck or bus driver is not allowed to drive for a continuous period of more than eight hours in twenty-four or for broken periods of more than fourteen hours in twenty-four. Many persons who drive their own cars exceed these periods and suffer accidents because of fatigue and need for sleep.

Again many persons driving over our highways have only one eye, suffer defective vision or impairment of hearing, all of which constitute serious potential hazards.

* Presented before the Delaware-Blackford Medical Society, May 17, 1938.

The second point to consider in highway accidents is the resulting traumas. Such injuries differ little from those due to other forms of violence, but our problem is generally more difficult because these injuries are generally multiple, they may be complicated by extensive burns, contaminated by road dirt, and the question of transportation may mean a loss of valuable time before adequate first aid can be given.

The subject of highway accidents covers the entire field of traumatic surgery, so here will be mentioned only those features not usually emphasized in text books but which have been found of value to me and my associates.

FIRST AID

The first aid at the scene of the accident should consist only in controlling bleeding by tourniquets or compresses, placing dressings over lacerated areas, temporary splinting of fractures of the long bones and the administration of morphine for relief of pain. As soon as the patient reaches the hospital or home, treatment for the reduction of shock is the next indication. While these steps are in progress, a very careful and complete examination of the patient should be made, keeping in mind the fact that in most highway accidents the injuries are generally multiple. If the shock apparently tends to increase, the chances are that the patient is really suffering from an internal hemorrhage and he should be given a blood transfusion as soon as possible while investigations are continued.

Next consider the traumas that may occur in various regions of the body as commonly encountered in highway accidents. The various suggestions are also applicable to similar traumas caused by other forms of violence.

Cranium. Severe blows on the head generally result in unconsciousness. This may result with or without fracture of the skull and as a rule we are not interested in whether or not there is a fracture during the first twenty-four hours unless the fracture is compound. In all other cases of head injury, it is very unwise to rush the patient to the x-ray room until he is entirely out of shock, and in most cases has regained consciousness. If a compound fracture of the skull is present, an operation is indicated as soon as shock has subsided in order to do a debridement, remove depressed fragments of bone from the brain and to tightly close the dura and scalp. All other injuries to the head and brain require no immediate surgery, the chief treatment being absolute rest combined with dehydration by means of intravenous dextrose solution. During the first twelve to twenty-four hours the patient should be carefully watched for signs of increasing intracranial pressure that might indicate a ruptured middle meningeal artery which, if present, requires ligation as soon as possible. Depressed fractures of the skull, not compound, require no immediate surgery.

Face. The careful repair of lacerations of the face, generally the result of broken glass, is very important in order to reduce disfigurement to a minimum, and this can be done more satisfactorily with the patient under a general anesthetic. In the repair of most wounds over the body, a debridement is indicated but this is not true for wounds of the face. Facial lacerations should be thoroughly cleaned but every particle of skin should be saved and sutured in place as accurately as possible. Areas of skin flaps may appear to have lost their viability but when sutured in place they heal as a graft. Catgut and skin clips should never be used in closing facial wounds. The suturing should be done with fine white silk on a fine, small cutting point needle. A deep row of sutures should first be placed to secure a firm approximation followed by a superficial row to obtain surface approximation without the least tension. For the superficial row, horse hair or other fine non-absorbable suture material is satisfactory. All superficial sutures can generally be removed within three or four days. If fine needles and suture material are not at hand, it is best to insert as few stitches as possible to control bleeding and to secure subcutaneous approximation, the surface edges of the wound being held in place by adhesive only. It is easy to repair such a scar later if necessary but it is very difficult to excise a scar with its two rows of puncture scars on either side made with a large needle or poor suture material.

Nose. Lacerations between the eyes and fractures of the nose are common injuries in collisions. The deformity of the nose should be corrected as soon as possible, in most cases under a general anesthetic. After the lacerations of the skin have been repaired, a curved steel urethral sound or a pair of closed curved hemostats should be inserted alternately in each nostril to push the fragments of depressed bone forward. At the same time the finger and thumb should mold the exterior surface of the nose. When satisfactory alignment and contour have been accomplished, each nostril is firmly packed with vaseline gauze, plain gauze compresses are placed on either side of the nose, and the compresses are held in place by a firm bandage about the entire head for a period of three or four days.

Lips. The lips, and especially the upper lip, are frequently lacerated or perforated by blows against the teeth. Such wounds are often jagged and as the entire lip is generally swollen, a good closure is often difficult. In perforating wounds it is generally best to close the mucous membrane wound by deep approximating sutures first, followed by superficial skin sutures only. In such an accident, one or more teeth are often broken in which case it is very important in every case to have an x-ray of the injured lip. In several instances a small fragment of tooth was left in the wound, later infection arose and when the infection subsided, there was additional deformity of the lip.

Maxilla. Fractures of both the superior and inferior maxillae may occur. Fractures with gross displacement are not difficult to diagnose but frequently the only evidence of fracture is the complaint of the patient that the teeth fail to occlude properly, in which case it will require an x-ray to determine the site of the fracture. In all fractures of the maxillae, wiring of the teeth is generally indicated, but if the material and instruments for doing this are not available, the application of a firm Barton's bandage will hold the parts temporarily. There is danger, however, in wiring teeth when nausea may be expected.

Cuts of the cheek involving the parotid gland call for the most careful approximation of the severed gland together with a firm closure of the subcutaneous tissue in order to prevent a salivary fistula.

Throat. The structures in the throat and anterior neck region are rarely injured in highway accidents. Occasionally, fragments of glass penetrate this area, in which case the problem is chiefly that of stopping hemorrhage and of closing the wound in proper layers. In most such cases the patient bleeds to death before help arrives.

Chest. Chest injuries following highway accidents are seldom serious. Ribs may be fractured but injury to the lungs is rare. A common injury is fracture of the sternum due to contusion against the steering wheel. Such a fracture is painful but not serious. We have never seen a heart lesion caused by or aggravated by a contusion of the chest.

Spine. The cervical spine may suffer various degrees of trauma when a moving car suddenly stops because of the forward momentum of the head. The trauma may vary from a strain of the intervertebral ligaments and adjacent muscles to a compression fracture of a cervical body or cervical dislocation. With strains and compression fracture, pain and stiffness of the neck will be the most prominent features but with cervical dislocation there is likely to be more or less paralysis and loss of sensation below the level of the injury. Until recently, patients with a cervical lesion accompanied by paralysis were subjected to a laminectomy but at present more conservative methods are being employed, namely, head traction. Some use immediate traction, with the patient under an anesthetic, to obtain reduction, but the most successful method now in use is the gradual traction of the head using the body as a counter weight. Such traction can be applied to the head by means of a jury mast made of adhesive straps or better with the aid of the Crutchfield skull traction tongs.

The dorsal and lumbar spine are subject to all types of injuries ranging from the various degrees of strains and contusions to compression fracture of a vertebral body, fracture dislocation of the vertebrae and occasionally rupture of an intervertebral disc with protrusion of the nucleus pulposus. Again, with the sudden stoppage of a car,

the spine may be bent acutely forward causing a dislocation between two vertebrae, which in turn may cause a stretching or tearing of the spinal cord, these events being followed by a spontaneous reduction of the dislocation. In such a case the patient may show a complete paraplegia and loss of sensation below the level of the injury and the x-ray will show no evidence of injury or displacement. With this type of injury, the conservative treatment is the method of choice.

In compression fractures of the bodies of the upper six or seven dorsal vertebrae, there is often an accompanying fracture of the sternum. Moreover, in all types of fractures of these vertebrae there is often an exudate or slight hemorrhage into the post-mediastinal space which may interfere with the function of the sympathetic trunks or their branches which causes a disturbance of the rate, rhythm and force of the heart beat. These cardiac symptoms generally clear up with two or three weeks of rest.

In compression and other types of fractures about the bodies of the lower dorsal and lumbar vertebrae, a similar condition may affect the retroperitoneal sympathetics causing a paralytic ileus which generally lasts for from two to seven days. Little can be done for this bowel condition but limiting food, inserting a colon tube and administering pitressin. It is important to recognize the presence of paralytic ileus so that it will not be confused with a direct injury to some intra-abdominal organ.

Kidneys. In all contusions to the back there is the possibility of a contusion to one or both kidneys. This shows itself by pain in the region of the injured kidney plus blood in the urine. We have never seen a simple contusion to a kidney fail to clear up promptly within two to three weeks with rest in bed and with a catheter in the bladder to prevent the accumulation of blood and the formation of clots in the bladder.

A wheel running over the body may cause a crushing injury to a kidney in which case there will be in addition to local pain and blood in the urine a certain degree of shock, signs of internal hemorrhage, and a gradually increasing swelling in the region of the injured kidney. In such a case, an immediate exploration of the kidney is indicated which, if found to be damaged beyond repair, should be removed.

Abdomen. Accidents to those riding in a car seldom involve injuries to the intra-abdominal organs; however, any form of contusion or rupture is possible, especially to the spleen. Occasionally the driver or passenger receives penetrating wounds to the abdomen from shattered glass in which case any organ may be lacerated. The most serious abdominal injuries from highway accidents are those in which the wheel of a car or truck passes over the abdomen causing a crushing injury. The danger from such an injury may be internal hemorrhage from a ruptured spleen or liver or from a torn mesentery or omentum; or

there is the danger of peritonitis from the rupture of a portion of the bowel or urinary bladder. The stomach and pancreas are very rarely injured in crushing injuries. One should keep in mind the rare occurrence of a traumatic diaphragmatic hernia.

In all accidents in which the symptoms are referable to the abdomen, morphine should not be given for fear of masking progressive symptoms. If possible, a red and white cell count should be made every hour. If the red cell count or hemoglobin becomes progressively lower, it indicates in most cases an internal bleeding. If there is a tendency for the white count to become gradually higher, it is very suggestive of a ruptured hollow viscus with beginning peritonitis. While we are studying such an injured person, he should be typed for a blood transfusion in case this should become suddenly necessary. In most cases of severe abdominal injuries it is impossible to make a positive diagnosis in time to save the patient's life, so we have made the rule that in all such cases the strong suspicion of an intra-abdominal rupture is sufficient to warrant an exploratory laparotomy. If the patient is in shock, a blood transfusion is given at the same time. In following this rule, we have opened a few abdomens which failed to show a serious lesion but the patients were no worse for their experience. On the other hand, we have on exploration found early but severe bleeding in some cases and crushed bowel in others and have been able to repair the damage in time to save the patient's life.

Bladder. In our experience the most common intra-abdominal and pelvic injury following highway accidents is a ruptured or lacerated urinary bladder or urethra. It is possible to rupture a full bladder by a sudden blow or compression injury over the suprapubic region, but most such injuries are the result of fractures of the pubic bones of the pelvis, the fragments of which penetrate the bladder or sever the urethra at the vesical neck. Every patient who has suffered an injury to the back, abdomen or pelvic region should be encouraged to void immediately. If the urine is free from blood we can feel sure that the urinary tract has escaped injury. If the urine is in fair amount and bloody and passes freely, we conclude, as a rule, that it is from a contused kidney; but if the urine is scanty and bloody, if there is bleeding from the urethra, or if the patient is unable to void, we then suspect an injury either to the bladder or urethra. Attempts at catheterization should next be made. If the bladder can be entered and only a small amount of bloody urine is obtained, it is possible that the bladder is ruptured. The next step is to inject through the catheter two to four ounces of sterile water, wait a few minutes, and if the amount of fluid recovered is decidedly less than the amount injected into the bladder, the probabilities are that there is a leak in the bladder. Again, if it is impossible to pass a catheter into the bladder in a patient who is

bleeding from the urethra, the chances are that the urethra is torn. Whenever one suspects a rupture of the urinary bladder or a tearing of the urethra, a suprapubic bladder exploration should be done immediately in order to repair the bladder or to splint the torn urethra by means of retrograde catheterization.

Extremities. Almost any form of injury may occur to the extremities. Elbows are lacerated and fractured to a degree requiring amputation, especially in those who ride with their elbows out of the windows.

Knees are frequently injured in the form of contusions, lacerations, tearing or severance of the patellar tendon, fractures of the upper end of the tibia and fractures of the patella both simple and compound.

By bracing the feet against the pedals, the ankles may be strained or fractured.

In all cases of injury to the elbows or knees in which there is evidence of blood in the joint, the blood should immediately be removed by aspiration and this should be repeated daily until the bleeding has ceased. Failure to do this may result in a stiff joint.

Fractures. Any type of fracture may occur in highway accidents. Two points should be emphasized. In all cases of compound fractures, the wounds should be thoroughly cleaned, devitalized tissue trimmed away, and the wound closed in layers without drainage. The fragments should be reduced as well as possible but in all compound fractures the most essential immediate treatment is the prevention of infection.

In fractures produced by great violence, there is the tendency for the fragments to be driven into the soft tissue often causing excessive bleeding in the injured part. For this reason it is necessary to handle these fractures with the utmost care and, if the part shows unusual swelling, reduction should be postponed for two to three days. We have seen two patients who bled to death from hemorrhage into the tissues of the thigh secondary to fractured femurs.

Amputations. The subject of amputations should be mentioned because these are so frequently done in an improper manner, and this is due in most cases to the haste in attending to a patient seriously ill and suffering from multiple injuries. In many accidents a limb is so badly injured that an immediate amputation is necessary and if the patient is in shock or if operative facilities are inadequate, an amputation at the point of injury as a temporary measure is permitted, but whenever possible the amputation should be made at the point of election so that later the use of an artificial limb will be as efficient as possible.

Disarticulations of the fingers, thumb, and toes give satisfactory stumps but disarticulations of the wrist, elbow, ankle, or knee produce stumps upon which it is almost impossible to wear an artificial limb. Amputation of the hand should be from one to two inches above the wrist. When

an amputation higher in the forearm is indicated, it should be made about two inches below the insertion of the biceps tendon on the radius. Amputation of the arm above the elbow should leave as long a stump as possible except that it should never be below the level of the condyles of the humerus.

The various classical amputations through the foot are of less value than the entire removal of the foot which should be done through the middle third of the leg about seven inches below the knee joint. Higher amputations of the leg should be at the level of two inches below the insertion of the biceps tendon. Amputations through the thigh should leave as long a stump as possible but should be no longer than the upper level of the condyles of the femur.

The Pedestrian. The pedestrian who is injured

on the highway generally suffers more than the rider. His first insult is when he is hit. As he strikes the ground he generally receives additional trauma and in many cases while he is down, he is run over and receives additional crushing injuries.

One peculiar form of injury to the pedestrian occurs when he is struck by a projecting part of an automobile, generally the door handle. On account of the motion of the projecting part, it may penetrate the skin at one point and the deeper structures at a point one or two inches from the skin wound. We have seen several cases where the door handle produced a scalp wound, the immediate underlying skull appearing perfectly normal; upon careful examination a perforation of the skull was found some distance from the external wound.

812 CHAMBER OF COMMERCE BUILDING.

HEAD INJURIES

FRANK B. RAMSEY, M.D.

Indianapolis

A discussion of head injuries in relation to highway accidents is especially important because of the high incidence of such injuries and because of the high mortality rate associated with them. The number of cases of skull fracture, concussion and brain trauma from all causes has increased markedly during the past decade. Almost all of this increase can be attributed to the greater frequency and seriousness of highway accidents. All persons who are seriously hurt in automobiles are the subjects of varying degrees of cranial and intracranial trauma. In addition to this, many of the minor injuries affect the head and it may be said that practically all traffic accident cases involve treatment of head injuries or the consideration of such injuries for the purpose of excluding them from the diagnosis.

The gravity and extent of head injuries resulting from automobile catastrophies is evidently greater than that associated with industrial accidents. There are several apparent reasons for this and a consideration of these factors may at times influence the management of such cases. Any measures taken to decrease the number of highway accidents will materially lessen the incidence of head injuries and any means of facilitating the treatment of head injuries will lower the excessively high death rate now associated with the operation of motor vehicles.

INCIDENCE OF HEAD INJURIES

About three-fourths of the victims of fatal highway accidents are subjected to serious trauma involving the brain and skull, and it is the head injury which is usually the primary cause of death. During the year 1937 there were 180 traffic

fatalities investigated by the coroner of Marion County. Seventy-five per cent of these cases showed head injury as the cause of death. In most instances it was listed as the primary or sole cause and in a few cases as an important contributing cause. These figures exclude cases showing such minor items as slight concussion and scalp lacerations, and the 75% may be taken as indicating the incidence of head injury as a major cause of death in highway accidents.

HIGH MORTALITY RATE

Another fact which makes study of automobile head injuries important in relation to highway accidents is that such injuries have a definitely higher death rate than head injuries from all types of trauma exclusive of auto accidents. A survey was made of 158 cases of brain trauma treated at the Indianapolis City Hospital and the Methodist Hospital of Indianapolis during the year 1937. All cases requiring less than 24 hours of hospitalization were excluded from the survey so that only cases of severe nature were tabulated. In the group of highway accident injuries the death rate was 37%, whereas in the group subjected to trauma of fights, athletic contests, falls and industrial accidents, the mortality rate was 27%.

There are several factors which may be mentioned to account for the higher mortality rate associated with these accidents. Some are of medical significance and consideration of them may influence treatment. First, trauma to other portions of the body and especially to the chest may add to the initial trauma and may also produce conditions under which diagnosis and treatment

of the brain injury is difficult or impossible. Second, the accidents are apt to occur in outlying districts, thereby making transportation to a hospital more prolonged and difficult as compared to industrial and home accidents. A third factor is that the original injury to the skull and brain may be of greater extent and thereby create a more difficult problem for treatment.

Of these three factors only the first two are of medical importance. The extent of the trauma at the time of the accident can be changed for the better only by reducing the number and severity of accidents. However, the question of recognition and treatment of the associated injuries and the problem of immediate treatment and transportation of head injury cases is of considerable medical interest.

DIAGNOSIS

In considering the treatment of head injuries it must be first stated that of all traumatic cases these require more individualization than any others. In conducting the treatment, a working diagnosis must be arrived at from the preliminary examination. This examination is usually limited because of shock conditions and includes a limited general and neurological estimate of injury. The initial treatment must be directed toward correcting circulatory shock, arresting hemorrhage, and cleansing wounds. At intervals after the original aid, careful and more complete examinations are made to determine more accurately the extent of the trauma and the effects of therapeutic measures already applied. As newly discovered injuries and developing complications are evidenced by repeated examinations and laboratory work, the treatment is changed. The therapeutic management of cranial injury therefore must be on a flexible basis. It is most efficacious if guided by broad general principles, rather than by a pre-arranged inflexible schedule. Any therapeutic course which is rigid will fit but a few of the total number of patients.

An exact diagnosis of intracranial conditions is often very difficult even when examinations and laboratory aid are unlimited. Many times even a thorough post-mortem examination leaves many details unsettled. When the care of the patient is hindered by elements of shock and associated injuries, an approximate diagnosis is the best that can be afforded. The management of any specific case, therefore, becomes a matter of adapting treatment as guided by general principles to a changing clinical picture as regards symptoms and provisional diagnoses.

CONTROL OF INTRACRANIAL PRESSURE

One of the prime requisites of any plan for the successful management of head injuries is its ability to control intracranial pressure. Traumatism of the brain and its coverings inevitably leads to varying degrees of increased pressure. In order to obtain a satisfactory result the intra-

cranial pressure must be kept within limits which will permit the continuous function of the vital centers. Therapeutic procedures which assist in this are of several varieties. First, abnormally high pressures may be reduced by the removal of cerebro-spinal fluid by spinal puncture. This method has its limitations in that a part of the increased pressure is usually due to edema of the brain tissue and cannot be removed in this way. Spinal puncture must be used with great caution in cases showing signs of middle meningeal hemorrhage due to the danger of herniating the medulla downward.

A second method of relieving intracranial pressure is directed more toward the tissue edema and consists of dehydration. This may be accomplished by limiting the fluid intake and by the administration of hypertonic substances intravenously or by bowel. These substances include glucose, magnesium sulphate and sucrose. The use of dehydration is limited since its effect is generalized over the entire body and vital organs such as the liver and kidney are placed at a disadvantage if the effect is carried too far.

A third means of relieving pressure is the operative removal of blood accumulated between the brain and skull either from arterial or venous hemorrhage. Direct relief of this type is very satisfactory and sometimes achieves dramatic improvement. All cases should be watched carefully for early signs indicating an epidural or a subdural hematoma and occasionally burr holes should be made as a diagnostic procedure to establish or rule out an accumulation of blood.

Caffeine administered hypodermically is effective in controlling abnormally high pressure. It also aids in supporting the general circulation and may be used in conjunction with other measures.

In the past there have been advocates of various pressure reducing measures who have utilized one particular system to the exclusion of the others. At present there is a tendency to adopt a combined system of treatment. Spinal drainage, removal of hematomata, and the various methods of dehydration and the use of caffeine may be combined so that no single means needs to be relied on exclusively. At times one single procedure (especially the operative removal of blood), may be especially indicated for one specific case and the other methods of controlling pressure may be omitted or used as adjuncts. Indications should be sought which will point out the most advantageous method to be employed primarily.

FUNDAMENTALS OF TREATMENT

In spite of friendly controversy over some points in treatment there is a noticeably high percentage of agreement on certain fundamental details. These are almost all concerned with the immediate and early care of head injuries and it is agreed that careful attention to these details will favorably affect the mortality rate.

The first of these fundamental principles is

that cases of intracranial injury do better if they are kept quiet and are moved only as is absolutely necessary. The majority of auto accident victims require transportation over relatively long distances and may be exposed to adverse weather conditions for a time before aid is available. The patient must be moved while in the initial stage of shock and of necessity arrives at the hospital with increased symptoms of shock. In some instances the length of the journey is sufficient to delay the accurate arrest of hemorrhage and the immediate debridement of wounds. In this way primary shock is increased and the addition of complications is favored. Every effort should be made to conduct the first aid and transportation stage of the treatment as expeditiously as possible and with the least amount of disturbance to the patient.

The second universal principle governing treatment recognizes the gravity of associated injuries. In highway accidents it is the rule to find that the patient has some trunk or extremity injury in addition to brain trauma. These associated injuries are important on their own account but they also deserve special attention when occurring in conjunction with cranial injury. First, when the patient is unconscious, the diagnosis of abdominal and intrathoracic lesions is difficult, and the true state of affairs may not be appreciated until too late for effective treatment. Second, the trunk injury when diagnosed may present some hindrance to the relief of the cranial injury as illustrated by the vertebral lesions which make spinal puncture impossible. Third, injuries to the chest wall and lung are particularly apt to be complicated by pneumonia if the patient is unconscious, and therefore has a faulty cough reflex and a tendency to breathe inefficiently. Fourth, in a person suffering from severe cranial trauma, major procedures such as laparotomy for ruptured viscera and operations for debridement and fixation of compound fractures are poorly tolerated and therefore cannot be done in a thorough manner or must be done at a disadvantageous time. For all these reasons, the associated injuries are of the greatest importance and are often the deciding factor as regards recovery. In treating such patients, careful search should be carried out early and repeated from time to time to diagnose such lesions.

The third widely accepted principle emphasizes the value of satisfactory roentgenographic studies of the skull. To be of the greatest value, these studies should be obtained as early as possible. The discovery of a simple undepressed fracture does not usually influence the treatment of the underlying brain injury. However, there are several types of fractures, the exact knowledge of which may be of utmost importance early in the treatment. Hemorrhage from the middle meningeal artery requires early intervention. Since it is a consequence of fracture of the plate of the

temporal bone, fractures in this region should be diagnosed immediately if possible. Some depressed and all compound fractures necessitate early care and the x-ray often plays a large part in their diagnosis. In general all the treatment will be more easily systematized and more judiciously applied if the condition of the skull can be ascertained by good x-ray plates.

As important as early roentgenograms are, they should not be obtained at the expense of moving the patient while in the early stage of shock. Due to the difficulties of doing an x-ray examination on a shocked or activated head injury there is a tendency to underestimate the importance of x-rays. However, they should be obtained as soon as the patient can be moved safely and will aid materially in the subsequent management.

SUMMARY

The following points may be emphasized. Head injuries resulting from highway accidents are usually of more serious nature and carry a slightly graver prognosis than the same injuries from other causes. When first seen at the hospital the effect of their injuries is apt to be aggravated by longer transportation and by exposure. Associated injuries in auto accidents are more common and require careful and repeated examinations for their diagnosis. Roentgenographic study should be done as soon as shock can be relieved. The treatment is most satisfactorily based on general principles. Its application should be flexible, depending on every item of physical examination, history and laboratory study that can be made available.

202 HUME-MANSUR BUILDING.

ABSTRACT

THE CHEMISTRY OF VITAMIN A AND SUBSTANCES HAVING A VITAMIN A EFFECT

L. S. Palmer, St. Paul (*Journal A.M.A.*, May 21, 1938), gives a brief discussion of the chemistry of vitamin A and the substances having similar effects. In a previous vitamin symposium in *THE JOURNAL*, the perplexing question as to why the yellow-red plant pigment carotene exhibits vitamin A activity although the familiar vitamin A of liver oils is essentially a colorless substance had been answered by the discovery that carotene is convertible in the body to vitamin A. The chemical basis for such a relationship had been established by Karrer and his associates, who had determined the chemical constitution both of plant carotene and also of vitamin A from fish liver oil. The first complete structural formula for carotene has since turned out to be that of *B*-carotene, which is by far the most important and widely distributed of the known coloring matters which have vitamin A activity. The final step in this chemical story is the synthesis of the pure vitamin in vitro. Recent reports indicate that this has been accomplished. The isolation of the crystalline natural vitamin has also been reported.

FRACTURES*

RECENT ADVANCES IN TREATMENT WITH NON-ELECTROLYTIC METAL APPLIANCES

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The ordinary metal appliances which have in the past been used in bone surgery have very often produced failure of union of the bones, or other complications. Plates and screws of different metals, such as chromium-steel, vanadium steel, stainless steel, etc., have been used indiscriminately with results which were variable and unpredictable. In most instances metal screws or plates or bands interfered with the healing of the fractures or produced so much erosion of bone in the vicinity that the appliances needed to be removed later to effect union. Consequently, the use of metals in bone surgery has gained a bad reputation and most orthopedic surgeons avoid their use as much as possible.

In the past most surgeons have believed that metal appliances damaged the bone by pressure necrosis, infection, or some sort of foreign body reaction in the tissues. For this reason, efforts were made to prevent any chance of infection in bone operations by the development of a so-called "no touch" technique wherein the bones were touched only with instruments. However, through experimental and clinical observations, we have been able to demonstrate that the principal cause of the destruction of bone about metal appliances is electrolytic reaction between the metals and the bone in the presence of the body fluids which act as the electrolyte.

We discovered last year for the first time that metal appliances destroy bone by a combined process of chemical corrosion and electrolytic activity in the metal itself.

We demonstrated, furthermore, that *if a non-corrosive and non-electrolytic alloy was used in the bone there would be no unfavorable reaction to it and no erosion of bone about it.* It is strange that bone surgeons had overlooked the possibility of electrolysis about these metal appliances before our experiments. Nevertheless, one need only look at a surgical supply catalogue to realize the utter indifference manifested in selecting metal or combinations of metals for use in bone. Now that these facts are recognized, any subsequent developments in fracture surgery will of necessity consider them.

EXPERIMENTAL WORK

In 1936 we operated upon a number of dogs in which we fractured one radius and left the other intact. Screws made of various metals and alloys commonly used in bone surgery were placed in the sound radius as well as in the fractured bone. The results were studied at three, six, and nine month intervals after the operations. As these animals were killed, x-rays and colored photographs were taken of the legs as well as complete chemical and histological studies of the tissues. In this way we found evidence of electrolytic activity by discovering migration of ions of one metal to the region of another metal.

This activity was in accord with the Law of Electromotive Force of Metals and was a phenomenon similar to electroplating. In other words, it was the first suggestive evidence that electrolytic action takes place about metal plates and screws in the living bone.

As the experiments progressed, it was suggested to us that there was a dental alloy, vitallium,

* Presented by Dr. Walter Stuck before the Muncie Academy of Medicine, February 8, 1938.

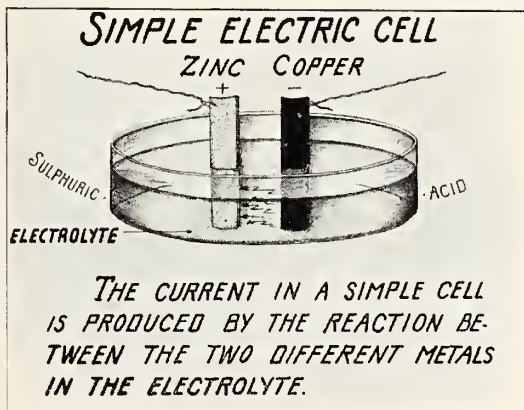


Fig. 1—Diagram demonstrating how electrolytic action takes place about dissimilar metals in an electrolyte.

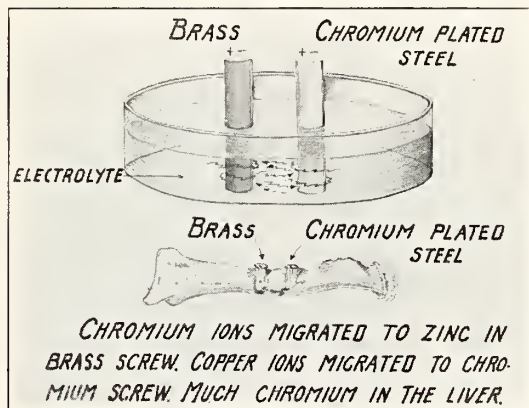


Fig. 2—Diagram from dog experiment showing evidence of electrolytic disintegration of metals in bone.

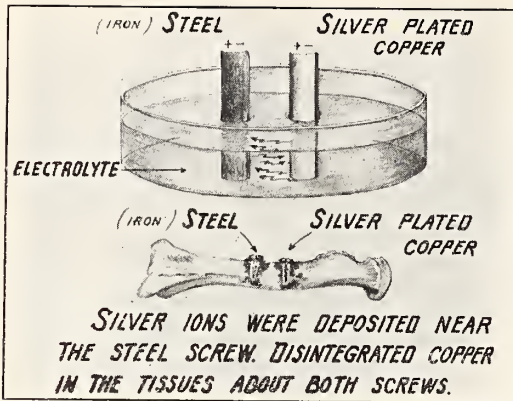


Fig. 3—Diagram from dog experiment showing evidence of electrolytic disintegration of metals in bone.

which seemed to resist corrosion and electrolytic activity. Therefore, we had small screws made out of this alloy and used them in many dog experiments in combination with other metals. Screws of this non-electrolytic alloy remained intact for months in the bone and there was no evidence of erosion or electrolytic reaction about them.

After we had convinced ourselves that electrolysis of metals takes place in the bone, we set up a number of experimental batteries in which screws and plates of various metals were placed in small jars of normal saline. Within a few days there was evidence of chemical corrosion and electrolytic disintegration of many of the metals with much sediment formation in the bottles. This was true in all the experiments wherein chromium-steel, vanadium steel or certain of the stainless steels were used. It was not true, however, when the non-electrolytic vitallium plates and screws were used. Moreover, when the screws or plates in the jars were connected with a microammeter, an appreciable current or difference in potential between the metals could be measured.

This was true of all the metals except vitallium.

In other words, vitallium was found to be totally inert in saline either alone or when combined with any other metal.

In another set of experiments, other batteries

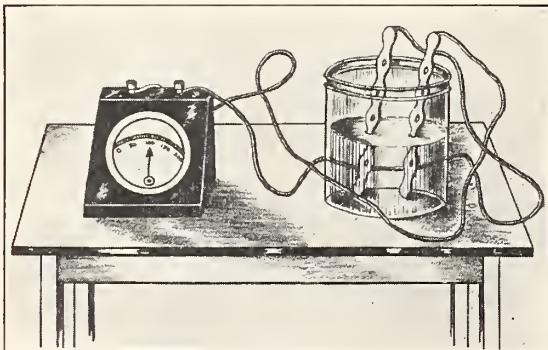


Fig. 4—Diagram showing the creation of a current between two dissimilar metals in physiological saline.

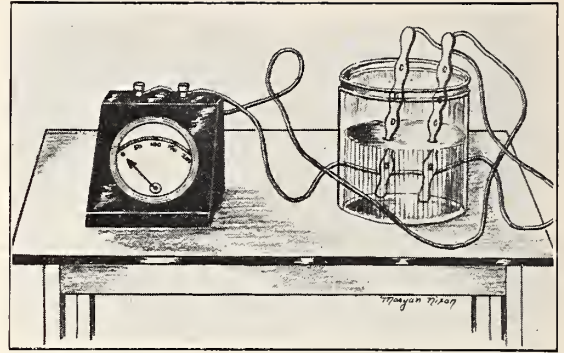


Fig. 5—Diagram showing absence of current between plates of vitallium in physiological saline.

were made by placing one screw of these various metals alone in a bottle of normal saline. This was done to see if electrolytic disintegration would take place about a single piece of alloy if the metals which compose it are subject to chemical corrosion in the solution. (Chemical corrosion of a metal appliance in the body accompanies electrolytic disintegration and molecular changes of the appliance itself. If the processes take place, they produce destruction of the adjacent bone and soft tissues.) In a few days the solutions became cloudy and full of sediment in the bottles in which a screw of Dow metal, vanadium steel, chromium-steel or duraluminum was placed. Moreover, chemical analysis of the supernatant fluids revealed presence of the constituent metals in solution. In other words, the electrolytic reactions between the component metals of these alloys were sufficient to cause disintegration. On the other hand, the vitallium screw under identical conditions was unaffected and the solution about it remained clear. Also, chemical analysis of this solution was negative for any evidence of constituent metals in the fluid.

As a sequel to the demonstration of electrolytic activity in the experimental batteries, similar experiments were attempted in living animals. Screws made of silver, vanadium steel, chromium-steel, nonmagnetic stainless steel, duraluminum and vitallium were placed in drill holes in the

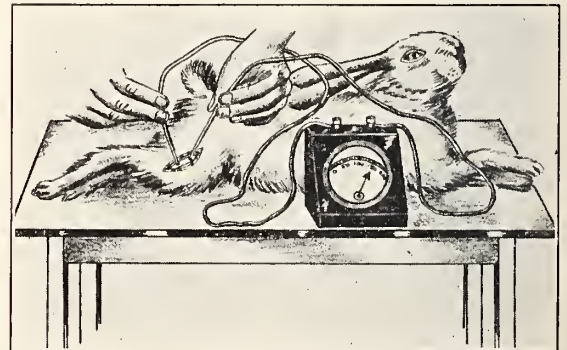


Fig. 6—Diagram showing current produced by screws of dissimilar metals in the bone of living animal.

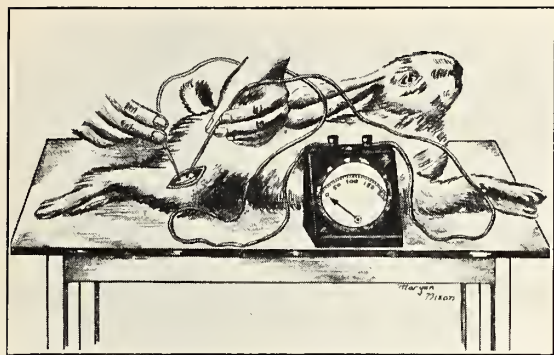


Fig. 7—Diagram showing absence of current produced when vitallium screws were placed in the bone of living animal.

tibiae of rabbits. The heads of the screws were left flush with the skin so that they could be connected with the microammeter while the metals were in the bone. When contacts were made with any two screws, an appreciable current was demonstrated on the microammeter.

This was true of all the metals tested except the combinations which included vitallium. Vitallium screws by themselves or in couple with any other metals produced no current whatever on the microammeter.

In short, we were thus able to demonstrate for the first time that dissimilar metals or alloys which do not resist corrosion and which possess differences in electric potential will create a measurable electric current when placed in the living bone. Likewise we demonstrated that if an alloy such as vitallium is used which resists corrosion by the body fluids and is, therefore, not subject to electrolytic activity, there will be no erosion of the bone or other evidence of electrolytic disturb-

ance about it. This was our most convincing proof that it is the electrolytic destruction of bone about ordinary metal appliances which causes failures in their use. Consequently, we felt justified in applying clinically these experimental findings that the electrically neutral alloy could be used with perfect safety in bone surgery.

CLINICAL WORK

Plates, screws, nails, pins, etc., suitable for use in human cases, were made of vitallium alloy modified to meet the needs of bone surgery. Appliances made of this alloy have been used in 46 patients with all types of bone conditions. In one old ununited fracture of the ulna which had been compounded, the operation aroused the old infection. The wound drained several months though it is difficult to determine if the metal plate caused the drainage. In another case a plate was improperly



FIG. 9A

FIG. 9B

Fig. 9A—X-ray of old ununited fracture of ulna.

Fig. 9B—X-ray seven months after application of vitallium screw. No erosion about the screw.



FIG. 8A

FIG. 8B

Fig. 8A—X-ray of old fracture—dislocation of the ankle.

Fig. 8B—X-ray four months after reduction of fracture and application of vitallium nail. No tenderness. No pain. No evidence of erosion about the nail.

applied to a tibia and delayed union resulted. The remaining 44 cases developed no complications due to the metal appliances used. In some of the old ununited and malunited fractures, healing took place rapidly as soon as the fragments were freshened and properly immobilized. At the present time some of the plates or pins or screws have been in bone as long as eighteen months without any x-ray or clinical evidence of pathologic changes of the bone or soft tissues. No metal has been available before which could be left in bone indefinitely with such complete assurance that erosion would not take place.

A natural question which will arise is: What about the patients in whom steel plates or wires or nails of one sort or another have been in the bone for years without symptoms? We know, of course, that this is true, but it is now apparent for the first time that electrolytic destruction has taken place about many of these appliances over

CASES IN WHICH APPLIANCES MADE OF VITALLIUM HAVE BEEN USED

I.

FRESH FRACTURES

(less than three weeks old)

Patient	Condition	Appliance Used	Time Since Operation	Complication
1. A. B.	—Comminuted Fracture of Femur	2 Hip Nails	4 months	
2. J. A.	—Fracture of Radius & Ulna	Plate & Screws	6 weeks	Pt. killed in hunting accident.
3. S. A.	—Fracture Neck of Femur	2 Hip Nails	4 months	
4. R. I.	—Fracture-Dislocation of Elbow	Nail in Condyle	5 months	
5. J. E.	—Comminution of Tibia	2 Steinmann Pins	4½ months	
6. E. F.	—Fracture Neck of Femur	Smith-Petersen Nail	3 months	
7. K. R.	—Fracture Neck of Femur	Smith-Petersen Nail	3½ months	
8. J. E.	—Fracture Tarsal Scaphoid	Screw	2 months	
9. J. B.	—Fracture Shaft of Humerus	Removable Screw	4 months	
10. J. E.	—Fracture Neck of Femur	Hip Screws	4 months	
11. J. M.	—Compound Fracture of Tibia	Plate & Screws	4½ months	
12. J. T.	—Fracture Internal Condyle of Humerus	Nail	7 months	
13. Z. F.	—Fracture Internal Condyle of Humerus	Nail	2 months	
14. G. K.	—Fracture Neck of Femur	Smith-Petersen Nail	1 month	
15. J. R.	—Fracture Shaft of Tibia	Steinmann Pins	2 months	
16. R. P.	—Spiral Fracture of Femur	2 Screws	1 month	
17. D. F.	—Comminuted Fracture of Femur	Steinmann Pins	1½ months	

II.

OLD FRACTURES

(more than three weeks old)

Patient	Condition	Appliance Used	Time Since Operation	Complication
18. C. B.	—Ununited Fracture of Femur	Screws	18 months	
19. R. J.	—Fracture Shaft of Femur	Plate & Screws	10 months	
20. J. G.	—Fracture Shaft of Femur	Plate & Screws	3 months	
21. A. H.	—Ununited Fracture of Tibia	Plate & Screws	3 months	
22. A. D.	—Ununited Fracture of Ulna	Screws	6 months	
23. J. N.	—Ununited Fracture Radius	Plate & Screws	2½ months	
24. J. M.	—Fracture External Condyle of Humerus	Nail	5 months	
25. C. S.	—Ununited Fracture of Radius	Plate & Screws	7 months	
26. S. W.	—Ununited Fracture of Tibia	Plate & Screws	4 months	Plate improperly applied. Wound infected. Delayed union.
27. M. K.	—Fracture Radius & Ulna	Screws	4 months	
28. E. W.	—Old Compound Fracture of Ulna	Plate & Screws	5 months	Wound drained many weeks.
29. J. S.	—Fracture of Humerus	Plate & Screws	6 months	
30. B. C.	—Fracture of Shaft of Femur	Plate & Screws	6 months	
31. J. P.	—Fracture of Shaft of Femur	Plate & Screws	3½ months	
32. W. M. C.	—Fracture of Radius	Plate & Screws	3 months	
33. E. R.	—Fracture of Shaft of Femur	Plate & Screws	11 months	
34. R. A.	—Fracture of Ankle	Nail in Malleolus	6 months	
35. S. H.	—Fracture of Ankle	Nail in Malleolus	3½ months	
36. R. M.	—Malunited Fracture of Femur	Plate & Screws	5 months	
37. H. H.	—Fracture of Shaft of Femur	Plate & Screws	12 months	
38. H. C.	—Fracture of Shaft of Femur	Plate & Screws	9 months	
39. J. S.	—Fracture of Shaft of Femur	Plate & Screws	10 months	
40. L. K.	—Fracture of Tibia	Plate & Screws	6 months	
41. J. G.	—Ununited Fracture of Femur	Plate & Screws	1 month	
42. P. F.	—Ununited Fracture of Tibia	Plate & Screws	4 months	

III.

MISCELLANEOUS CONDITIONS

43. T. C.	—Flail Shoulder (Polio)	Arthrodesis Nails	6 months
44. B. U.	—Flail Shoulder (Polio)	Arthrodesis Nails	7 months
45. J. H.	—Defect in Tibia (osteo)	Bone Graft and Metal Screws	4½ months
46. F. D.	—G. S. W. of Femur	Bone Graft and Metal Screws	5 months

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FIG. 10A

FIG. 10B

Fig. 10A—X-ray of elbow showing old ununited fracture of the external condyle of the humerus.

Fig. 10B—X-ray of elbow three months after reduction of fracture and fixation with vitallium nail. No erosion about the nail.

a period of years. In some cases the bone has healed in spite of this erosion and the metal appliances have become walled off with scar tissue. In others, wounds have begun to drain years later or late symptoms have developed. Nevertheless, since the difference between success and failure

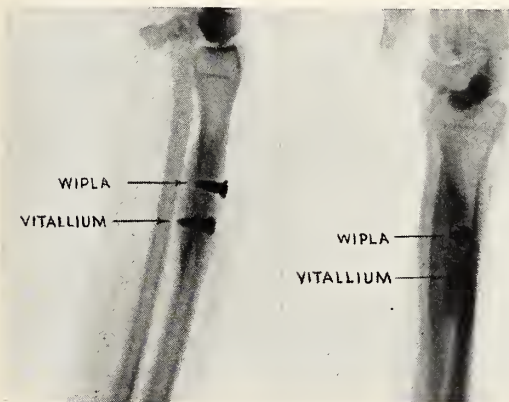


Fig. 11—X-ray of dog's foreleg in which a non-magnetic stainless steel screw (above) and a vitallium screw (below) were placed in the radius. X-ray taken four months later shows evidence of erosion around the stainless steel screw and none about the vitallium screw.

in dealing with many fractures is slight, there seems now no reason to gamble with metals which may erode bone by chemical corrosion and electrolytic destruction.

Again it may be asked how one metal appliance, such as a single nail or screw in the bone, can cause electrolysis. In the first place, it must be remembered in this connection that the ordinary single nail or screw contains two or more different metals combined as an alloy. Also it is apparent that no single appliance is made of one pure metal. The commonly used steel alloys contain iron (which is highly corrosive in the body fluids) and such other metals as chromium, vanadium, or nickel, which with iron are subject to a great deal of electrolytic activity. Therefore, bone is destroyed around them. Some high grade non-magnetic stainless steels are so tempered that surface corrosion is reduced to a minimum. Yet in our experimental animals non-magnetic stainless steel screws of the best grade produced in four months erosion that could be demonstrated in the x-ray. Vitallium screws under identical conditions showed no evidence of bone erosion. When the animals were sacrificed, it was found that the non-magnetic stainless steel screws could be pulled out of the bone. They had long since lost their grasp on the bone and histological examination revealed considerable tissue destruction. The vitallium screws, on the other hand, were very tight in the bone and could be removed only with a screw driver.

Histological examination of the tissues about them showed no evidence of damage or erosion.

Vitallium is likewise an alloy of several metals (chromium, cobalt and molybdenum) but it contains no iron. Moreover, the high percentage of cobalt makes it very hard and highly resistant to corrosion by the body fluids. In the metallurgical preparation of this alloy, the constituent metals lose their basic properties so that the appliances made of vitallium are "electrically silent" in the tissues.

In the 46 clinical cases which we are reporting, vitallium appliances have been used in many different ways in bone, and it seems that this material is as totally inert in human bone as we have found it to be in the animal bone. Hence, we are inclined to think that it opens a field of surgery which has unlimited possibilities. With these facts, bone surgeons can return with safety to the use of metal appliances without fear that bone will not heal around them. Fracture surgery will thus become more simplified and the percentage of failures will markedly decrease.

DISCUSSION

WILL F. LYON, M.D. (Chicago): Dr. Stuck's work is based on such intelligent experiments and so many clinical trials that it is authoritative and commands our utmost regard.

There are just two points I wish to make in respect to the use of metals in fractures of bones:—

(1) They should not be used where simpler meth-

ods of retention will suffice; (2) If we are going to apply a plate or other metal fixation device, the job should be made as mechanically perfect as possible.

My experience with 600 fractures has led me to classify them purely from the standpoint of treatment into four groups:

1. Those requiring no reduction. This accounts for 55% of all my fracture cases. Examples: Badly broken foot and hand fractured through metacarpal bones, etc.

2. Those requiring reduction but once reduced are easily held by a simple external splint. This accounts for 30% of my cases.

3. Reduction is needed, but reduction alone is not sufficient and traction must be maintained during the healing period. This accounts for an additional 10% and was illustrated by a fracture of both bones of the forearm.

4. In the remaining 5% of my cases some form of internal fixation has been required and in some of these a plate seems to offer the best immobilization.

Case No. 1. This man, an engineer, fell with a small rug on a waxed floor, fracturing the ulna two inches from the olecranon and dislocating the head of the radius. After various attempts to reduce both the dislocation and the fracture, including Kirschner wires and the wiring of the fracture itself, non-union resulted and the radius was still dislocated. After eight months a plate was applied and resection of the head of the radius was done.

Most of the cases in which I have applied a plate have been transverse fractures of the humerus and femur.

Case No. 2. A fracture of the humerus with severe tearing of the soft tissues about the fracture so that the ends of the bone would not stay put. These require some form of internal fixation.

There is another type of fracture of the humerus, also transverse, where the soft parts are pretty much intact and in these reduction and external splinting suffice.

If one wishes to apply a plate six points seem to me essential:

1. A strong plate of non-corroding metal.
2. Metal type of screws, self-tapping, same material as the plate, to prevent electrolysis.
3. Correct size drill for the screw employed—same as the root diameter of the screw.
4. Drill holes perfectly centered in the hole of the plate.
5. At least half of the screws long enough to engage the opposite cortex.
6. Screws snugged in place but not tightened excessively.

Dr. Stuck has proved that metals may be non-irritating and that if screws and plate are of the same metal there may be no electrolysis. Then if the plate is well applied, mechanically perfect

immobilization may be expected from it. One of the essentials is the centering of the drill holes in the holes of the plate and pictures were shown of a jig designed to accomplish this. Pictures were also shown of the various types of screws and the so-called wood screw or conical pointed screw was condemned.

E. B. MUMFORD, M.D. (Indianapolis): I feel quite sure that the work of Doctor Stuck and his associates has been a very great advance in the study of the metal devices which we use for the fixation of fractures. Just how great the importance is going to be, of course, remains to be seen as some of the points brought out in his discussion may be open to question and this work has not been entirely confirmed. Personally, I have no objections to the use of metal for fractures, although I have never put on a metal plate. However, I have taken off some that had become loose. Whether the metal we have been using has been of the wrong type and has been the cause of the devices becoming loose and causing a disturbance in bone healing, or whether the failure of the metal device to fulfill the purposes for which it was used is due to a lack of fixation of the fracture may be a point for discussion. We all know that metal bands and metal plates have been used for many years by competent men and with very satisfactory results. This has been emphasized by Doctor Lyons who has been using plates of a metal type for many years with a satisfactory degree of success. I have used the Parham metal band for many years and have put bands on practically all the bones of the body, and in many instances these bands have been in place for over twenty years.

In discussing the use of a metal device, I think it should be made very definite that such devices are not for fixation but are merely sutures. Whenever any metal device is used it is as essential that an efficient external splintage be used as if the internal metal device had not been applied. We know that any strain through motion causes pressure and that pressure causes necrosis, and that when necrosis occurs around the screws or nails or bands we have a condition which is entirely different from that when such necrosis does not occur. In other words, the metal in a normal bone does not produce, as a rule, any reaction but serves its purpose as a suture and lies dormant until healing takes place. On the other hand, if necrosis does occur then we have an apparent reaction of the metal and the bone which prevents healing and leads to a nonunion with a loosening of the metal device requiring its removal before healing will take place.

Several years ago I became interested in the use of sutures for fractures as we were all trying to out-do one another with different types of gadgets. In going over the history I found and obtained photographs of about sixty-five different

types of devices which had been suggested. These devices resolved themselves into three or four groups including nails, bands, transfixation pins, intramedullary pegs, etc. I devised a very simple method of fixation of the fracture by the formation or creation of a spike on the end of one of the fragments which could be inserted into the medullary cavity of the other fragment. If one will recall that the reason we cannot interlock these fragments by introduction of one portion into the medullary cavity of the other portion is due to the bevel on the fragments, then it is easy to see how this operation which consists in cutting back the bevel on one fragment leaves a spike, and this spike can then be introduced into the other fragment just the distance which had been cut back on the bevel. Such a fixation is firm and does not require any special apparatus or special training upon the part of the surgeon. The ordinary bone clamps together with the rongeur or chisel to cut the bevel and create the spike are all that is necessary. This can be done very quickly and does not require any secondary operation, and we do not have any foreign bodies to create a disturbance in the way of non-union at a later date. This method has been reported by me in *Surgery, Gynecology and Obstetrics* and has been in my hands a very satisfactory method for a period of about ten or twelve years.

I want to emphasize that I feel that metal of any type should not be used in compound fractures.

I want to congratulate Doctor Stuck upon his presentation of a very interesting phase of fracture work and I am quite convinced that this new metal which he suggests will do away with a great deal of the annoying sequelae or problems which have made internal fixation uncertain.

H. R. ALLEN, M.D. (Indianapolis): Dr. Walter G. Stuck has given us a simple, a valuable and a new idea that is basic to bone surgery when it is necessary to use metallic devices for cleating bone fragments together and in line.

Since the idea is an innovation it must run the gauntlet of all new ideas. It is fortunate that the pith of his idea can be reduced to the following ten word message: "The absence of galvanism is basic to uniformly good results."

After this bomb-like new idea explodes in our heads, we examine the debris relics of previous conceptions. We recall the old soldier with the lead bullets in his leg and we recall the sewing needles that migrated around in our anatomy and I find myself recalling the pure gold band that my father put around a broken femur over sixty-five years ago. None of these people suffered any ill effects from galvanism, because a single piece of metal can not of itself generate an electric current. The old soldier wore a lead slug in his leg and not a modern steel-jacketed lead bullet. The needle entered the body with a steely white polish

but came out black as jet and just as polished. The gold band was of pure gold and not an alloy of gold, nor was it a gold plated steel band whose plating might have a microscopic fracture admitting body fluids to set up a galvanic battery.

When a dentist puts one gold and one silver filling in the same mouth he doesn't know that he has inserted a permanent battery until his patient tastes the current and tells him about it. There are no tongues in arms and legs to taste the galvanic current. It is the x-ray later on that tells the surgeon about the erosive effects of the galvanic current his metal gadgets have caused.

The good results obtained in spite of galvanic currents call for comment as they are stumbling blocks in the path of clear, straight-forward reasoning. All of us have experienced really brilliant results when we used any old assortment of variegated metals. The answer to this situation reminds me of the very brave tiger hunter who made a point of never hunting where there were any tigers. It is just so with the unaccountable good results.

If the various assortments of metal become encapsulated in connective tissue envelopes, then the battery fluids of the body are dammed off from the electrodes and the chance of establishing an electric current under such conditions is reduced almost to the vanishing point, so bone erosion is negligible.

Dr. Stuck has given us not only the cause and effect of galvanism, but also its remedy. He advocates the use of an alloy from which his galvanometer can detect no electric current when used in our bodies. If surgical technique is to be perfected it will include some nongenerating elements of galvanic electricity.

DR. STUCK (closing): I appreciate very much receiving this discussion from men as prominent as Drs. Lyon, Mumford, and Allen. In any presentation of the use of metal fixation devices in fractures, questions of technique will naturally be brought up. We are not recommending widespread fixation of fractures. We are only saying that in those fractures where internal fixation is needed, non-electrolytic metal appliances should be used.

Dr. Allen's pins are all right because nothing touches the bone except silver, and no electrolysis can take place. Most instruments, however, are not so carefully plated as Dr. Allen's pins and hence the plating cracks. This creates a battery in the bone. In the past much fracture healing has taken place in spite of metal appliances instead of because of them. In certain types of open reductions, the difference between success and failure is very slight. If there is danger of interference with bone healing because of electrolytic metal, it is taking a big risk to use such metal. On the other hand, it seems now that we can use metal with perfect safety for fractures if electrolysis can be eliminated.

We happened to find that vitallium was an alloy that was totally inert in bone with no electrolytic activity. So far we have found nothing so completely non-electrolytic in bone. We will, therefore, continue to use vitallium appliances

until something better is found. Meanwhile, we are anxious to experiment with any alloys or metals which are proposed for this work in bone surgery. Only in that way can the best material be found.

GUNSHOT WOUNDS OF THE ABDOMEN*

FREDERIC W. TAYLOR, M. D.

Indianapolis

The number of gunshot wounds of the abdomen encountered in civil life has increased to the point where they no longer can be classed as infrequent. At Cook County Hospital¹ in Chicago the incidence of this injury doubled in the first few years following the World War to become the cause of .8 per cent of all hospital admissions. There has been no appreciable decrease since. Much the same experience is found in other urban communities. It, therefore, would seem proper to air this subject occasionally before the medical profession so that efforts may be made to decrease the present appalling mortality.

The present study was started in an attempt to correlate the writer's successes and failures with those of others—to analyze the mistakes which were made so they might be avoided in the future. It seemed desirable to compare those cases of gunshot wound of the abdomen cared for in our own community with those reported elsewhere.

The series of patients used for comparison consists of consecutive admissions for gunshot wounds of the abdomen to the Indianapolis City Hospital between the years 1930 and 1937. Cases in which a bullet obviously did not perforate the abdominal wall were excluded from the study. There remained 101 patients in whom the abdomen was perforated or was thought to have been perforated, thus necessitating operation. Also included in the 101 cases are 11 shotgun wounds of the abdomen. They are included in the general mortality statistics but will be dealt with separately since they present several problems which are peculiar to this type of injury.

MORTALITY

The general mortality of the entire group was 53.4 per cent (54 deaths). This, however, includes 14 patients who were operated upon and no perforation found in the peritoneal sac. Exclusion of these gives a mortality of 59.8 per cent (52 deaths). This, then, represents the death rate in the present series for all patients receiving bullet wounds which perforated the abdominal wall.

Such a mortality (59.8 per cent) is astounding. Yet we may have some solace in the fact that this approximates very closely the results found by others. McGowan² reports a mortality of 59.3 per cent at Harlem Hospital, New York; Oberhelman and LeCount¹ report 61.4 per cent at Cook County Hospital, Chicago. Records show 62.3 per cent at the New Orleans Charity Hospital,³ and Prey and Foster⁴ report 72.7 per cent at the Denver General Hospital.

A few series give mortalities which are considerably under those listed above. These are for small numbers of patients with the exception of those cases of Billings and Walkling,⁵ who report a mortality of 48.2 per cent at the Pennsylvania Hospital, Philadelphia. It may be safely stated, then, that penetrating gunshot wounds of the abdomen in civil life cause a mortality which approximates 60 per cent.

A further mortality analysis of the City Hospital cases is given in table 1. The figures of the Cook County Hospital series are given for comparison. A close similarity is noted with the exception of where injuries involve the solid viscera. The reason for this wide difference is not evident except that the Indianapolis City Hospital series

TABLE 1
Mortality Comparison of Indianapolis City Hospital Series

	Cases	Died	Cook County Series	
			Oberhelman, LeCount (1)	Mortality Mortality
			Per cent	Per Cent
Patients having perforation of abdominal cavity.....	87	52	59.8	61.4
Hollow Viscus injury	43	22	51.1	60.5
Solid Viscus injury.....	10	7	70	25
Both Hollow and Solid Viscus injury.....	17	15	88.2	84.5

2 McGowan, F. J.: Penetrating Wounds of the Abdomen, *Ann. Surg.* 102:395 (Sept.) 1935.

3 Quoted from McGowan.

4 Prey, D., and Foster, J. M.: Gunshot Wounds of the Abdomen, *Ann. Surg.* 99:265 (Feb.) 1934.

5 Billings, A. E., and Walkling, A.: Penetrating Wounds of the Abdomen, *Ann. Surg.* 94:1018 (Dec.) 1931.

* From the Department of Surgery, Indianapolis City Hospital. Presented before the Indianapolis Medical Society November 9, 1937.

1 Oberhelman, H. A., and LeCount, E. R.: Peace Time Bullet Wounds of the Abdomen, *Arch. of Surg.* 32:373 (March) 1936.

TABLE 2
Mortality of Cases With Intestinal Wounds

	Cases	Died	Mortality Per cent
Small intestine (incl. Stomach)			
alone	11	5	45.4
Small intestine (incl. Stomach)			
and another viscus injury	40	29	70.2
Large intestine (incl. rectum)			
alone	12	4	33.3
Large intestine (incl. rectum)			
and another viscus injury	15	12	80

contained only 10 cases in which solid viscera alone (liver, spleen, pancreas, kidneys) were injured.

It is further noted that multiple visceral injuries cause a very definite increase in mortality. Thus, when both hollow and solid viscus injury occurred, 88.2 per cent of the patients died. This same factor is found in table 2. When the large intestine alone was injured, the mortality was 33.3 per cent. This rose to 80 per cent when combined with other visceral injuries. Much the same findings have been reported by others. They are of interest only from the standpoint of prognosis and serve no purpose as an aid in treating the patient.

ANALYSIS OF DEATHS

The most important phase of any series such as this is an inquiry into the cause of death in the various cases. The patients who died were, therefore, catalogued as to the time of their deaths following surgery. The results are indicated in table 3. Here it is seen that more than half of the deaths (58.5 per cent) occurred within the first post-operative 24 hours, and nearly half (45.3 per cent) occurred in the first 12 hours.

These figures point strikingly toward one fact: that the majority of deaths from gunshot wounds of the abdomen are the result of hemorrhage and shock. The patient who dies within the first 24 hours does not die because of a peritonitis. During that time the peritonitis has not developed to a stage where it may cause death by toxemia or obstruction. The rapid deaths which occur following a massive fecal contamination of the peritoneal cavity are the result of shock and not the

TABLE 3

Time of Death Following Operation in the Fifty-three Post-operative Deaths			
0- 3 hours	(12 cases)	22.6 per cent	} (31 cases)
3- 6 hours	(5 cases)	9.4 per cent	
6-12 hours	(7 cases)	13.2 per cent	
12-24 hours	(7 cases)	12.2 per cent	} 58.5 percent
1- 2 days	(6 cases)	11.3 per cent	
2- 3 days	(8 cases)	15.1 per cent	
3- 6 days	(4 cases)	7.5 per cent	
6 or more d.	(4 cases)	7.5 per cent	

Deaths 1-10 days due to peritonitis and its sequelae (15 cases) 28.3 per cent.

result of a toxemia from peritonitis. Also during this first 24 hours the patient does not die of the other common complications such as wound infection, wound evisceration, and post-operative pneumonia.

A further analysis demonstrated that only 28.3 per cent (15 cases) of the deaths were the result of peritonitis or its sequelae. Therefore, peritonitis definitely assumes a secondary role as a cause of death.

Of the 12 deaths which occurred within 3 hours after operation, 10 were due primarily to blood loss. Of those dying during the first 24 hours, 16 deaths (52 per cent) were directly the result of blood loss. The remainder died of peritoneal and operative shock with varying degrees of hemorrhage. Mason⁶ reports an 87.2 per cent mortality in patients having a large hemorrhage as noted at operation. This corresponds closely to the findings in the present series in which 85 per cent of 27 cases died in which a large hemorrhage was observed at operation.

It can safely be stated that practically all of our patients dying in less than 24 hours (58.5 per cent) died as a result of hemorrhage or shock. It, therefore, follows that our prime efforts should be bent toward combating the principal cause of death—hemorrhage and shock. Fortunately the treatment for both is the same: transfusion and intravenous fluids.

The importance of transfusion has been pointed out by others. McGowan² indicates that it should be ordered with the operation and should become as important a part of the care of these patients as operation itself. It is not an infrequent occurrence for the patient to go to exploration apparently in good condition only to go into collapse and die quite suddenly.

It is not the writer's opinion that exploration should be withheld until a donor is available. The patient should, however, be typed immediately on admission and possible donors be called. Intravenous fluids may be started and continued throughout the operation. In the majority of instances a donor can be cross-matched and a transfusion given before the patient leaves the operating room. At times it may be necessary to transfuse before proceeding with the exploration. This is facilitated by having made previous arrangements for transfusion.

In the present series only two transfusions were given before or during operation. Only 11 intravenous infusions were given during the same period in an attempt to combat shock and hemorrhage. It should also be noted that of the 31 patients who died during the first 24 post-operative hours, only 7 received transfusions.

Technical details have purposely been omitted from this discussion. However, a few points must be emphasized. Next to transfusion in impor-

⁶ Mason, J. M.: Hemorrhage in Injuries of the Abdomen, *Ann. Surg.* 79:382, (Mar.) 1924.

tance from an operative standpoint are overlooked perforated viscera. In the series reported by McGowan² visceral injuries were overlooked in 15 of 27 cases coming to autopsy, and in the Cook County series¹ they were found in 55.6 per cent of 169 autopsies. It should be pointed out that not all of these overlooked lesions in themselves proved fatal. In the Indianapolis City Hospital series 6 overlooked lesions were found in 14 reported autopsies. Other autopsy records in the coroner's office were not examined.

It is obvious that there will always be overlooked lesions since at times the condition of the patient does not warrant a methodical search of all viscera. However, if the patient's condition is satisfactory, every inch of intestinal tube from stomach to rectum must be inspected. An attempt to visualize the course of the bullet may lead to the finding of a lesion well out of range of the abdominal puncture. An ample eight-inch incision saves time and trauma to the patient. No thought should be given to a possible future hernia.

The interval of time between injury and operation has been considered closely related to the mortality. In general our patients received very prompt attention. For those who survived, the average interval of time between injury and operation was 2.4 hours. For those who died it was 3.0 hours. The length of the operation in those who lived was 1.25 hours, and for those who died 1.42 hours.

An appendectomy was done at the time of operation in 5 instances. Such a practice is to be condemned and classed under the heading of trifling surgery. In one of these cases there was a sub-serosal hematoma at the appendiceal base which probably justified the removal. In the others, however, there was no justification whatever—the un-inflamed appendix merely presented itself temptingly in the wound. Certainly those who carry out such a procedure have missed the whole issue at stake—a life and a mortality which at best reaches above 50 per cent. Of the 5 cases on whom an appendectomy was performed, 3 died.

Other instances in which the most important problem at hand was overlooked were found in the histories of some of our patients. Occasionally a complete history including a minute questioning as to venereal exposure would be recorded and yet blood pressure readings would be omitted. Again, anti-tetanic serum would be administered only to have the patient die in shock a few hours later without having had a transfusion or intravenous fluids. Lastly, on the operating table, precious time was lost occasionally excising the bullet wound in the abdominal wall or searching for the bullet itself.

In the entire series late complications were rather frequent. Of course, in every case which survived the first post-operative day there was a varying degree of peritonitis. Other than this, wound disruption occurred 3 times with 1 death; pneumonia 4 times with 3 deaths. The most fre-

quent complication was a severe wound infection in 8 patients, 3 of whom died. Embolism caused 2 deaths, and biliary fistula 1 death. One patient developed a fecal fistula, and he survived.

SHOTGUN WOUNDS

Shotgun wounds of the abdomen deserve separate consideration. They bear certain features which demand quite different care than bullet wounds. Willis⁷ has recently advocated expectant care of the patient having scattered "bird-shot" wounds of the abdomen. This opinion is based on a series of 23 cases receiving shotgun wounds and upon experimental work. It is the contention of Willis that the small intestinal perforations caused by "bird-shot" are quickly closed by a pouting mucosa which allows little soiling of the peritoneum. If the patient is kept at complete rest, adhesions soon form, and later healing takes place. Wounds of the solid viscera are usually so minute that little hemorrhage results and spontaneous healing is the rule.

It is, of course, obvious that the mutilating wound of a shotgun at close range demands prompt energetic surgical care. The same is true of other shotgun wounds in which the patient tends to shock from blood loss.

In the present series there were 11 cases of shotgun wounds of the abdomen. The results obtained in these patients would seem to confirm the observations of Willis. Of the 11 patients, 6 recovered. In these 6 recoveries, 4 were not operated upon and received only sedation, bed rest, and nothing by mouth for several days. X-ray plates taken on two of these demonstrated numerous "bird-shot" studding the abdominal contents and liver. Of the other 2 surviving patients, 1 was operated upon and hemostasis effected in a bleeding mesentery, and in the other the shotgun pellets had not perforated the peritoneum.

All of the 5 whose deaths resulted from shotgun wounds were operated upon. There were 2 instances of rather hopeless close range injury, and 1 with biliary duct injury with bile extravasation. The remaining 2 patients had respectively 53 and 75 perforations of the intestinal tract. These were laboriously closed at operation. It is suggested that such extensive procedures are far too great for the average patient to survive.

CONCLUSIONS

1. The general mortality for penetrating gunshot wounds of the abdomen received in civil life approximates 60 per cent.
2. The mortality in the present series (Indianapolis City Hospital) was 59.8 per cent.
3. The majority of these deaths are *not* due to a resultant peritonitis. But 28.3 per cent (15 cases) died from peritonitis or its sequelae.
4. The majority of deaths (58.5 per cent in the present series) are the direct result of hemorrhage and shock. The shock was caused by hemorrhage,

⁷ Willis, B. C.: Shotgun Wounds of the Abdomen, *Am. J. Surg.* 28:407 (May) 1935.

operative procedure, or rarely a massive peritoneal contamination.

5. It is suggested in the treatment of abdominal gunshot wounds (a) that prime consideration be given to the probable internal hemorrhage and shock, (b) that arrangements be made for transfusion at the time of ordering operation, and (c) that intravenous fluids be given until a compatible donor is available.

6. Those in charge must not lose sight of the fact that a life is at stake in a patient who will probably die of hemorrhage and shock.

7. Shotgun wounds of the abdomen in which the "bird-shot" is scattered over the abdominal wall and without evidence of internal hemorrhage are best treated conservatively with bed rest, sedation, and nothing by mouth.

23 E. OHIO STREET.

ABSTRACTS

RATIONALE OF SULFANILAMIDE IN GONOCOCCIC URETHRITIS

One of the authors (Farrell) has treated ten cases of gonorrheal urethritis with sulfanilamide by mouth. Only five of the patients responded to treatment, the other five seemed to derive little benefit from the drug, as evidenced by persistent discharge, so that local treatment was begun. None of the ten patients had any complications such as posterior urethritis, prostatitis or epididymitis. Because of the repeated observations by the various observers that no complications occur, it seemed advisable to JAMES I. FARRELL, Evanston, Ill.; YALE LYMAN and G. P. YOUNG, Chicago (*Journal A. M. A.*, April 9, 1938), to determine a rational basis for the use of sulfanilamide in gonorrhea. Large male dogs were used in their experiments. The dogs were given sulfanilamide by mouth for several days, the daily dose being approximately 0.18 Gm. per kilogram. The prostatic fluid of two dogs which had received sulfanilamide intravenously after a sample of normal prostatic fluid had been obtained was tested for germicidal activity. Both samples were tested with *Bacillus coli* and only one with *Staphylococcus aureus*. The sulfanilamide is excreted in bactericidal concentrations, in both the urine and the secretion of the posterior urethra, when adequate doses are given. According to the experiments, from 10 to 15 mg. of sulfanilamide seems to be adequate antiseptic concentration. The experiments demonstrate that the bactericidal power of prostatic secretion on colon bacilli and *Staphylococcus aureus* is marked. In twenty-four hours all the bacteria were reduced in number. In dogs given sulfanilamide in approximately human doses, there were no viable bacteria on the plate at the end of twenty-four hours. The drug appears to act directly on the infecting organisms in the urinary tract.

REPORT OF THE A. M. A. COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

RAY LYMAN WILBUR, Stanford University, Calif. (*Journal A. M. A.*, April 23, 1938), states that during the past year the Council on Medical Education and Hospitals has been engaged in a follow-up campaign in connection with the national survey recently made of all the medical schools of the country. It has endeavored to be helpful in the correction of weaknesses

in certain schools but has reached the stage at which, if it is found impossible for an institution to maintain a strong and effective medical school, it shall soon give public announcement to the removal of all such schools from its approved lists. The Council's commentary on the medical education of today will soon be made available. The most important factor in determining what comes out of a medical school is what goes into it: that is, the educational and personal qualifications of those who are accepted as students. The utmost emphasis must be placed on standards for admission and the process of selection. The Council recommends that the minimum requirement be raised from two to three years of college. Already approximately 90 per cent of those admitted have reached this level; but a few schools with lax admission policies still accept candidates with barely sixty hours and barely passing grades. For raising the requirement, three reasons may be urged: to permit a more thorough grounding in science, to allow the prospective medical student more opportunity to become acquainted with non-science subjects which are intimately related to his professional activities and to insure that students from junior colleges shall have spent at least one year in a university atmosphere before entering the professional school. The ultimate selection of medical students rests, however, more on a qualitative than on a quantitative basis. Any improvement must come through better selection based, among other things, on higher standards of achievement. The university or school assuming the responsibility of training the physician should realize that every effort is both justified and required to assure high quality of training for carefully selected men and women with good brains, good hearts, good will and good character.

IF an accident occurs while your car is traveling under 40 MILES AN HOUR there is only ONE CHANCE IN 44 that someone will be killed



But



IF an accident occurs while your car is traveling over 40 MILES AN HOUR there is ONE CHANCE IN 19 that someone will be killed ... DEATH Begins at 40!

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Editorials

THE TOLL OF TRAFFIC

A modern motor car speeds along a modern concrete ribbon; a modern high-speed train moves swiftly along the shimmering rails; each is headed for a common point—a railway crossing. It is impossible to know what is passing through the mind of the driver of the motor car; where his thoughts are centered or how much his attention is distracted by the conversation of his fellow passengers is not determinable. Our vital concern is centered in the action that takes place when the two speed demons arrive simultaneously at the crossing.

Again, two motor cars speed along separate highways, highways constructed with the best skill of the engineering profession; each highway is marked, one probably marked as a "preferential" or as an "arterial." Again the mental processes of the drivers are unknown, but it is known that when the two cars meet with an appalling crash, the Angel of Death takes charge of the situation.

In each instance there is the screech of hastily and forcefully applied brakes, the horrible sound of a terrific impact, and soon the shriek of the ambulance siren. Victims are laid out along the roadside or stretched upon tables in the nearest hospital's emergency room.

The following day's press states, in a manner becoming almost laconic, that so many were killed and so many injured in the crash. Mr. John Public as he looks over his morning paper casually remarks, "Well, I see three more were killed out on Road 41 last night." And so we have but the epitome of what is going on in every section of the country, though the "take" is much higher in the more populous communities. In Cook County,

Illinois, alone, the annual toll averages around the thousand mark while in 1937 the nation supplied a casualty loss of almost forty thousand citizens.

From time to time there is noted a report that for a week or a month the automotive death rate appears to be on the decline and we begin to feel easier; then comes a fair-weather week-end, and the death toll mounts to alarming proportions. There is a period of increased activity in our law-enforcing agencies; our local courts are crowded with traffic violators; our judges become stern and mete out fines and jail sentences unrelentingly. The "fixed ticket" procedure is passé and all offenders take their day in court. But in a short time this vigilance is relaxed and the slaughter continues.

As a matter of fact, driving hazards are increasing, notwithstanding the improvements in road construction such as marking the center line and providing four-lane highways, often built with a parkway in the center. Much of the hazard increase is due to the constantly increasing number of automobiles sold and operated. Some of it is to be blamed upon the issuance of driver's licenses to juveniles; some is due to the lack of restrictions in issuing licenses to the near-blind, the lame and the halt; some, of course, is blamed upon Repeal. The increase in the possible speed of the new cars is a factor to be considered. Frequently the owner of a new car is heard to remark that he is "going to take her out and see what she will do!" Space does not permit discussion of these various points.

Legislative bodies have sought the answer to this problem. Each two years, Indiana motorists are confronted with changes in the traffic laws, and many motorists today are not familiar with the changes made by the general assembly of 1937, nor will they ever learn of what is done in 1938 save for the possibility of their being haled into court for a violation.

A study by one of our larger insurance companies shows that a motor car leaving a highway at a speed of twenty-five miles per hour develops enough energy to turn over once; at twice that speed the car is likely to do a quadruple somersault, and at seventy-five miles per hour it has the potential energy to turn over nine times!

Physicians should not need many examples of the dangers attending the operation of motor cars, yet occasionally one of our number is added to the dread toll. One central Indiana physician who continually preached safe operation of motor cars was a victim of his own carelessness while driving. Speed limits seem to have little effect, and riders are killed at low speeds, too. States with low speed limits supply their quota of the casualty lists.

Remember: 'Death begins at forty!'

NEW SEROLOGIC TESTS FOR SYPHILIS

The publications of the Committee on the Evaluation of Serologic Tests for Syphilis indicate that all too frequently both complement fixation and flocculation tests are carried out at a level of efficiency below that of which the tests are inherently capable. It is alarming that some commercial concerns are offering for sale to general practitioners relatively new and unestablished serologic test outfits containing antigen and other materials. The promoters claim that these methods may be carried out by the practitioner in his office, are suitable for rapid diagnostic work with whole blood and with spinal fluid, and are sufficiently accurate to guide any physician in the treatment of his patients with syphilis. The fact that the antigens for these methods are crude or that they may deteriorate rapidly is not mentioned. Neither is it pointed out that the dye materials incorporated in the antigens are useless to a trained serologist and will be equally valueless to one not familiar with the interpretation of flocculation reactions. Warning is not given of the danger which is always present in serologic procedures carried out with whole blood or of the complete reversal which inactivation may induce. Nor is it admitted that these methods have had only a limited practical test in hands other than those of the originators. Furthermore, a most grievous omission is the failure to recommend the use of positive and negative control serums as guides in the interpretation of the test. The care of glassware, the concentration and pH of the salt solution and many other factors requisite for trustworthy serologic results are omitted from the instructions. Thus, active commercial promoters may place in the hands of the individual physician everywhere a diagnostic function which is acceptable as efficient only when performed in laboratories adequately equipped and staffed by trained personnel. The claims for these techniques are based on inadequate experience and the procedures themselves are open to criticism on many technical grounds. The science of serology has not as yet progressed to a degree of simplicity at which the detection of syphilis may be placed on a basis comparable to the detection of albumin in the urine. It is difficult to see how any premature steps in this direction can do other than work to the detriment of the patient with syphilis.—Editorial, *Journal A. M. A.* April 23, 1938, p. 1373.

This editorial is reprinted at the suggestion of the Syphilis Control Committee of the Indiana State Medical Association, and one of the members of this committee has advised that he has "run these commercial reagents along with the regular test for syphilis and found that the percentage of errors is much greater with these new methods, even in skillful hands."

OHIO RIVER CONTROL

With the coming of the vacation season when folk move about the country and when Hoosiers take those trips that make them better acquainted with their native Indiana, the question of pollution of our rivers and streams again becomes a live one. For those who are really interested in the subject, we have the pleasing information that steps are now under way which, when and if completed, will assure a definite slowing up in the process of stream and lake pollution.

The Federal government finally has become conscious of the fact that industry and the various municipalities have been taking over our waterways or, in other words, they have for years been depositing sewage and other filth into those waters without let or hindrance. The primary plan involves the Ohio River, one of the most beautiful streams extant and one that has an historical heritage equalled by no other stream in this country. The states of New York, Pennsylvania, Ohio, Kentucky, Illinois, Tennessee, and West Virginia recently sent representatives to a conference whose purpose was the study of plans to control the pollution of these waters. Indiana, of course, also was represented. This group went so far, in their preliminary step, as to sign an anti-pollution compact, and to this there was not one dissenting vote. This agreement provides that these eight states will cooperate with the Federal government in enforcing such laws covering the subject as may be enacted by Congress. While it is true that this legislation is yet in the making, there is every assurance that the present Bill will become a law.

It will be many years before the Ohio River is restored to its pristine beauty, but a start is a start, and we may expect future generations to look upon this beautiful stream even as we looked upon it many decades past. It would be futile for any one state to attempt this project. No matter how well the work was done within that state, and no matter how much money was spent in the furtherance of the plan, the Ohio River would continue to be a polluted stream unless all the affected states united in a common plan sponsored by the Federal government. In this way only can the desired result be obtained.

That opposition to the proposed plan will develop is accepted as a matter of course. Some cities and some industries along the water course will object to the expense involved in the proper treatment of waste material which now is poured into the river in the raw state, but somehow we feel that this project is going through and that any objections will be overcome. A long-suffering population of many millions, once they know what the plan really means, will demand summary action, and popular clamor will have its usual influence in legislation.

Through a drastic order from the Indiana State Board of Health, the pollution of that portion of

Lake Michigan which touches the State of Indiana will be controlled, and with the present prospect of pollution control of the Ohio River, Indiana will be well on her way to solving one of our greatest health problems.

PUBLICITY—OF A SORT

A few weeks ago the Chicago press and subsequently the nation's press devoted much space to an unfortunate condition occasionally found in the eyes of children, a condition generally known as gliosarcoma of the retina. The disease is by no means a common one, yet it is far from being categorized as one of the really rare conditions of early infancy. Most ophthalmologists have seen enough of such cases to be very familiar with them, and hundreds are unreported. Ophthalmic literature occasionally contains a case report upon this condition, especially if there is more than one such case in a family, but ordinarily these cases are practically unnoticed. Not so the Chicago case!

Apparently an enterprising newshawk, alert for a "human interest" story (and what affliction of a baby does not have that?), seized upon it as front-page copy and proceeded to get busy with it. Other papers followed suit and the reading public was deluged with official pronouncements from this or that doctor, some of whom combined into a special group for the examination of the afflicted child, and the pictorial sections of the newspapers carried all sorts of illustrations, many of which were almost grotesque. Oculists throughout the Middle West were besieged by their patients and by others who wanted information regarding what they thought was a new disease. Children with any form of "cast" in their eyes were hurried to the doctor lest a glioma be overlooked, and many adults, after reading the lurid details of glioma, were convinced that they, too, had the dread disease.

Always we have maintained that one of the prime obligations of the medical profession is to see to it that information regarding certain diseases should be given to the lay public, and that such a procedure would do much toward establishing the profession more firmly in the good graces of the thinking laity. However, we feel that this is a thing that should be approached with due caution, for if we have a message for the reading public, that message should be couched in understandable language, and it should be made clear that such items are for informative purposes only and not for self-advertisement. This sort of thing can be overdone, and it was overdone in the instance mentioned to such an extent that the discriminating public realized that they were being played as gullibles.

Intelligently prepared without sensational accompaniments, medical propaganda has its place. The lay public has come to believe that it has the

right to expect informative articles from the medical profession, and such publicity is perfectly proper when it is correctly and advisedly used, but in instances such as the one mentioned it does the profession little good. It simply becomes publicity—of a sort.

COUNTY MEDICAL SOCIETIES AND PUBLIC HEALTH

There are many ways in which the county medical societies assist in public health work, but a new one recently has come to our attention. The county health nurse and the reference committee of the Sullivan County Medical Society planned an attempt to reduce the maternal mortality rate in the county by supplying a sterile bundle for each delivery in the county. The township trustees agreed to supply the necessary materials and the PWA sewing project made up the finished supplies. A sorority agreed to take care of the laundry bills, and the county hospitals sterilized and stored the bundles until needed. When a bundle is used, the physician sends it to the laundry and it is returned to the county nurse's office where it is repacked and sent to the hospital for sterilization.

In this particular county there are seventeen physicians who do obstetrical work, and there were 456 births last year. Seventy-six bundles have been prepared to care for this work. The bundles consist of: (1) gown for the patient; (2) one sheet; (3) one drape sheet, split, and with leg pockets; (4) gown, cap, and mask for the physician; (5) six heavy towels; (6) two perineal pads; (7) a heavy muslin square in which to wrap the supplies. Sterile rubber gloves are supplied by the county hospital at the cost of the gloves used.

When the patient is properly prepared, the use of this bundle should give as much safety against infection as is found in the average hospital. The service was instituted February first of this year, and now has been worked out in detail so that it is satisfactory in its practical application.

INDIANA'S PLAN "TO PROTECT
THE HEALTH OF THE PEOPLE OF
THE UNITED STATES" WAS AP-
PROVED BY THE HOUSE OF DELE-
GATES OF THE AMERICAN MEDI-
CAL ASSOCIATION AT SAN FRAN-
CISCO. READ THE REPORTS FROM
THE SESSION ON PAGE 354.

Editorial Notes

Most accidents, both fatal and non-fatal, occur when the driver is going straight ahead. This is fairly conclusive proof that high speed is a major cause of injury and death, for it is only on the straight-away that a driver can really "step on the gas."

In the last fifteen years, 441,912 persons have been killed in the United States by automobiles. This is almost twice the number of American soldiers who were killed in action or who died of wounds in all the wars this country has engaged in since its birth.

The *Bulletin* of the Indianapolis Better Business Bureau calls attention to an editorial published recently in *The Journal of the American Medical Association* under the title, "No Sunshine in Soap." Various brands of soap have been exploited for their supposed Vitamin D content, the "filtered sunshine" in the lather, etc. One advertiser said that vitamin D in skin soap would smooth out premature wrinkles, reduce large pores, eliminate blackheads and pimples, and correct such skin conditions as acne, etc. Says the *Bulletin*, "The advertiser who proclaimed the Dawn of a Great Beauty Discovery (vitamin D soap) may soon be worrying about the twilight of the day when the sky was the limit for claims about 'sunshine soaps.'"

Now comes the clever suggestion that paper bottles be used as milk containers, something on the order of those used for oysters and similar foods. The idea seems to have met with a generous acceptance and we are inclined to agree with the suggestion. Economically, it would seem that the cost of milk distribution would be materially reduced since no little part of the cost at the present time is the matter of glass containers. Then, as to the sanitary aspect, it is true that the modern dairy sees to it that all bottles are sterilized before filling, but after the cap has been removed there is the possibility of contamination from the lips of the bottle, which would not apply in the case of the paper containers. It remains to be seen just what the reaction of our health boards will be to the proposition, but the idea surely is not without merit.

Less than ten per cent of the fatal and non-fatal crashes last year were caused by mechanical failure of the automobile—faulty equipment on the car itself. In more than 90 per cent of the

accidents, the vehicle was found to have been in apparently good condition. The trouble, therefore, lay in *human failure*—faulty equipment between somebody's ears! In most instances it is the driver or the pedestrian, and not the car, that causes accidents.

In looking over a list of committees of a western county medical society which employs a full-time lay executive secretary, we found several committees on subjects that were new to us, and after a little study in trying to find what it was all about, we discovered that each of these committees had plenty to do *provided* there was some one to act as a directing head. Presumably this is provided by the aforementioned executive secretary, for it is one of his jobs to see that committee work is carried out. We recall the days in our Association affairs when numerous committees were appointed and some worked and some defaulted, all because there was no guiding genius to prod them along. Then came the Blonde Senator whose job it is to see that things are done, and all committees did their stint thereafter. All of this is but another pro argument for the employment of a full-time, *lay* executive secretary by each of our large component groups.

After all we've said! Now comes a letter from an Indiana physician who sends along a form letter that a credit syndicate is sending to his patients. The letter contains such sentences as: "Are you going to pay this account amicably, or must we use hard-boiled tactics?" "... your credit standing in your community may be jeopardized." "If we are compelled to report the attitude you have assumed in regard to payment of this account, it will not be favorable." The collection company is located outside of Indiana and the letters, threatening and discourteous, even if they effect the collection of some past due accounts, will create sufficient ill will for the physician to more than offset the value of the collections. Physicians should never give their accounts to collection agencies that make a business of sending threatening letters only and give no particular consideration to the kind of an account that is receiving attention, for such agencies invariably do the physician more harm than good through their efforts to collect. Before you turn your accounts over to any collection agency, investigate that agency!

One of the hopeful signs in the campaign against motor traffic accidents is the ever-increasing number of cancellations of drivers' permits. It seems that the authorities in control of these permits have finally concluded that a bit of drastic action might help, and it has helped. As a matter

of general observation, it is noted that in any community where a special drive against motor traffic accidents is carried out, there is at once a decided drop in the number reported. This leads us to the opinion often expressed that enforcement of our present traffic regulations will bring about a decided reduction in the number of accidents.

A physician called the secretary of his local county medical society a few days ago and asked where he could get some data on state medicine; he had been asked to make a talk before a PTA group *three days later*, and he wanted "to get all the dope" on it. A little questioning revealed the fact that this man had accepted the invitation to speak some time before, and that he knew very little about the subject; he was in a rush to get some material that he might look over a bit before making his talk. Contrast this with the attorney who makes a specialty of such talks and who, when asked to prepare a paper on this same subject, requested data and spent several weeks in its study before he wrote a single sentence! To our notion there is entirely too much of this "free lance" speaking before lay audiences. The majority of county medical societies have special committees whose task it is to supply medical speakers on any and all health subjects. If this committee is properly organized, a report will be made from the lay group to the committee after each talk, and the report will indicate just how well the talk was received. Speakers who are not prepared do the medical profession no good.

Illustrations and figures in regard to highway accidents in this issue have been borrowed from the booklet "Death Begins at 40" which is published by the Travelers Insurance Company. The booklet presents an analysis of last year's traffic accidents, based on official figures from the 48 states. There is no intention in the booklet nor in THE JOURNAL to advocate 40 miles an hour or any other fixed speed as the top limit. Naturally, there are times when 30 miles an hour is suicidal, and times when 50 miles an hour is reasonable. But, as is pointed out in the booklet, every driver should realize that if he does have an accident it is more likely to mean death if he is going fast. Courtesy on the highway is one of the essentials of better and safer driving.

A bulletin from the U. S. Department of Agriculture says that fear of the tick that carries Rocky Mountain spotted fever in the East need not keep people indoors this summer. The tick's principal danger lies in its bite which can be avoided by simple precautions, such as wearing boots laced up over trouser legs when walking

through tick-infested areas, and removing ticks before they attach themselves to their human host. Ticks work their way upward on the body; the back of the neck and head are their favorite feeding places. Careful examination of heads will reveal the presence of a tick in time to prevent a fatal bite. Examination of the whole body is necessary after exposure to ticks. Clothing can be effectively "deticked" by placing them in a vessel that can be tightly covered, and setting on top of the clothing a pan containing half a teacupful of carbon tetrachloride or carbon disulphide; a few hours of such fumigation kills the ticks. The important thing is to get the tick off as soon as possible. There is no known cure for Rocky Mountain spotted fever; its mortality rate is one out of every five persons infected. The tick that carries Rocky Mountain spotted fever is rare in Indiana, but the East has an unusually large number of common dog, or wood, ticks this year, and it may be well to mention this to those of your patients who plan to travel in that direction. According to the bulletin, islands off the coast of Massachusetts and of South Carolina are heavily infested, especially Martha's Vineyard, Nantucket, and Nauset. The Narragansett Bay islands are rather heavily infested, and there are large numbers of ticks on Long Island, especially the eastern half, and along Chesapeake Bay in Maryland.

Browsing about through medical literature one evening, we came across an informative editorial in the June number of the *West Virginia Medical Journal* entitled "Privileged Communications." Back in our medical school days we were warned that it was a heinous crime to discuss the relation of physician and patient except with that patient. Later, with the advent of the Compensation Act, we discovered that in cases coming before that Board this matter was waived but it continued to prevail in all other relations. Now comes the editorial mentioned with the information that this law applies in exactly half the states of the Union; that just twenty-four states have no such provision. The writer's authority is based on an article by T. H. S. Curd, judge of the Eighth Judicial Court of West Virginia, a state, by the way, in which there is no such law. According to the judge, who seems not to favor such a law, a physician who is sued for malpractice would not technically be permitted to testify in his own behalf. While the plaintiff would legally be permitted to "talk his head off," the defendant physician would be required to sit and take it, without reply. In concluding his article, Judge Curd is quoted as saying, "Undoubtedly there should be a gentleman's understanding between the physician and patient that the physician should not go out and voluntarily discuss most intimate matters affecting the patient's illness, but where the rights of third parties become involved or the rights of

the public to the extent of litigation or prosecution for violating the laws, the truth should never be suppressed, which in all these instances either aids in defrauding some individual or infringing on the rights of the public at large." This seems to be a very sensible view upon the subject.

In 1937 the highway commission made a survey of some 35,000 reported accidents; the tabulated causes were given as light, weather, road conditions, vehicle, driver, and traffic. Discussing the last, they find that motor vehicle registration in Indiana shows 270 motor cars per thousand of population. The national average for the same year was 230. We know that increased traffic causes a rise in the number of accidents; therefore, Indiana would be expected to be a little above the average for the country. A smart statement recently was noted: "If all persons enlisted in safety organization activities throughout Indiana practiced the things which they preach, much of the highway accident problem would be solved." Not long ago, we noted the arrest of an official of a safety council in one of our larger cities for a rank violation of the traffic code. We do not presume to offer any solution for one of the gravest of our present problems except to suggest, as we have done on many occasions, that a more strict enforcement of the traffic regulations would materially reduce the annual death toll. We are further of the opinion that marked restrictions should be added to the very few now in force relative to the issuance of driver's licenses; too many hold these bits of paper who should not have them. Not only should an applicant's physical condition be thoroughly checked, but his mental state should be carefully considered. Too many drivers are temperamentally incompetent. The writer has refused to touch a steering wheel for many years because of what is generally termed "absent-mindedness." (On occasion it has been termed schizophrenia!)

Again quoting from an article on the subject of traffic accidents, "There is no magic formula for safety, and no better remedy than the three E's—engineering, education, and enforcement."

Governor M. Clifford Townsend in his address at the dedicatory exercises incident to the opening of the new clinical building of the Indiana University School of Medicine, May fourteenth, took occasion to express his views concerning the part the medical profession plays in Indiana affairs. His remarks were far from being of the stereotyped order, and it was evident that Governor Townsend has some decided views in the matter. Speaking upon the subject of governmental interest in the welfare of its people, he remarked that "The government and the medical profession are lending a helping hand to those who otherwise would be

without medical assistance." Later, speaking of our profession, he took occasion to say, "They have devoted much time and effort to bringing more and better medical care to the people." His ideas concerning the utility of a clinic center in our capital may be found in his statement: "Whenever I read of a dictator attacking democracy, I think of the great medical center we have in Indianapolis, established by the people under a democratic government. If you and I had been living here one hundred years ago, and someone told us that this great medical center would be established here, we would have told the prophet that he was a dreamer, building air castles of a Utopia that never could exist." Governor Townsend also took occasion to pay a merited tribute to Dean Gatch for his untiring efforts in bringing our medical school to its present state of utility and high efficiency. In concluding his address, Governor Townsend offered these comments: "Public health is a cooperative venture of both the medical profession and the government. We realize in this administration that no public health program can be successful without the guidance and help of the medical profession, and in all our public health problems we turn to the medical profession for advice." . . . "We have tried to meet the health needs of the people without interfering in any way with the private practice of medicine. I think we all agree that a sane program of public health can be conducted to meet the demands of the people without conflicting with private practitioners." On behalf of the medical profession of this great Hoosier state, THE JOURNAL expresses its deepest appreciation of his remarks, and in particular of his assurance of the continuation of the cooperation we have enjoyed during the years he has served as the head of our government.

These two things stand out clearly as the result of the San Francisco session of the American Medical Association: first, no deep division exists within the ranks of organized medicine despite several so-called minority "revolts"; second, authorities at Washington at last have chosen to discuss medical-economic problems with the representatives of the American Medical Association rather than inviting individuals merely representing themselves or representing medical groups other than the A.M.A. to participate in the health conference to be held at Washington in July. The invitation to this important conference was presented by Miss Josephine Roche and accepted by the House of Delegates. We in Indiana can do our part to make the influence of the A.M.A. felt as it should be felt both by the profession and by the governmental authorities by doing the medical survey job in each local county medical society as well as it possibly can be done. Many of the questions troubling physicians in regard to this survey were answered at the San Francisco session.

Highway Accidents

DON F. STIVER, Superintendent
INDIANA STATE POLICE

Of all the tragic circumstances under which the human body can come to misfortune the modern high speed highway commonly represents the most destructive. The terrific impact of colliding vehicles frequently does incredible damage to accident victims. Time elapses before a proper guard can be posted at the scene to prevent additional mishap from cars which unsuspectingly crash into the wreckage, adding another factor to the physical danger to stricken motorists.

By the time the ambulance has been called, has arrived, and has transported the injured one to a distant hospital, he may well be and often is beyond hope of the recovery which he might have experienced had he been handled properly and expeditiously. Where persons do recover, they often retain crooked backs, paralyzed or stiffened limbs, and other legacies of carelessness and mismanagement.

The brutal melee at the accident scene is in such utter contrast to the delicate technique and scrupulous cleanliness of the modern surgeon that the medical man must shudder at the task of mending a body cruelly mutilated not only by the accident itself, but additionally impaired by the unsatisfactory circumstances under which first aid is often rendered.

POLICE AID ACCIDENT VICTIMS

In Indiana, the agency charged with aiding the accident-accursed driver on the open road is the Indiana State Police. Through the lightning despatches of the state police radio system, police cars may be instantly speeded to accident situations, and through their alert patrol of the main highways, officers happen on to many emergencies even before the state police have been called.

Trained in first aid and supplied with complete first aid kits, the officers do their utmost to give competent treatment, move the patient as little as possible and yet remove him from all danger of other passing cars. Unfortunately, the state police too frequently are not informed of the need for their services until many minutes after the period when they could be most helpful, and arrive only in time to make a report of the damage and have the wreckage hauled away.

Well-meaning but untrained citizens by then may have compounded a fracture by careless movement of the victim, may have permitted him to bleed to death when such could easily have been prevented, may have infected the flesh and blood and bone with unclean clothing, hands or improvised remedies, and have otherwise bungled a job that urgently needed a doctor's attention at once,

or needed, at the least, the attention of one who knew what NOT to do, as well as what to attempt.

Obviously, the general public should be impressed with the absolute necessity of calling the police at once, and at the same time indicating whether a doctor or hospitalization seems to be needed. Some hospitals will not send an ambulance unless called directly by a physician or the police. However, it seems apparent that much more than this simple direction is needed to civilize the barbaric moment when life and death gamble with fate in a highway accident.

The medical fraternity appears as the logical agency to undertake measures for alleviating the physical consequences, and even the financial consequences (as it pertains to the physicians and hospitals), of motor vehicle accidents. The physician and the hospital are the last to deal with the patient's injuries, hence they, rather than the first-aiders, bear the burden of his cure. They, too, carry the financial liability incident to his recovery until, if ever, he can pay the bill.

THREE SUGGESTIONS FOR PHYSICIANS

Attacks on the problem might be made from three angles by medical associations.

First, they might spur the education of the average citizen in the rudiments of first aid through such organizations as the American Red Cross, Scout leaders' training courses, industrial concerns and others. A broad field like this will naturally never be thoroughly tilled. However, if physicians constantly preached even the value of carrying first aid equipment in one's car, eventually the public consciousness would be awakened by their combined pleas.

Second, even as the dentists have pioneered work among school children for better care of teeth, so might the medical groups crusade for a more adequate understanding among young people of the elementary methods of caring for the injured. Treatment for shock, fainting, broken bones, hemorrhage, cuts, bruises and burns should be a familiar practical procedure to everyone. It is indeed a stupendous undertaking to reach every school child with this information in applicable form, but the medical profession permeates every nook and cranny of the state and nation, and certainly should be able to lend much influence and assistance to the movement.

Third, financially the doctors and hospital executives would be doing themselves a great service to promote accident insurance coverage among auto

(Continued on next page)

President's Page

INDIANA AT THE A.M.A. MEETING

The Indiana State Medical Association has presented the American Medical Association and the American people with a workable plan of preventive and curative medicine.

This plan contemplates not only ADEQUATE but also good medical care beginning prenatally and extending throughout life.

We have been hearing much talk, and have seen gallons of ink spilled, in arguments for the so-called socialization of medicine. It would seem to any one who has given the matter even elemental consideration that the mere treatment of sickness and even the prevention of preventable illnesses offers no solution to the problem. It is a well proved fact that practically all sickness occurs in exact ratio to the intellectual and economic level of the individual. If the sociologist and the economist would apply the same zeal on this angle of the problem, perhaps more would be accomplished.

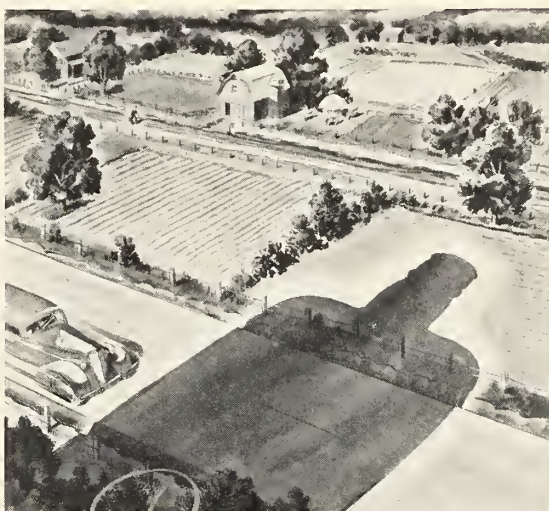
It seems to me that by active cooperation of the medical profession, the sociologists and the economists, an ultimate solution might be found. This should be possible within the framework of the present social order and it would preserve for the average American, physician and layman alike, his individualism, his dignity, and his self-respect.

Herman M. Parker

drivers. Unforeseen medical and hospital expense incurred in auto accidents catches thousands every month wholly unprepared to meet it. Merciful men cannot refuse aid when it is direly needed and hence are forced to bear the cost of their impoverished patients' treatment. Driving is a luxury, and a driver who makes no provision for financing the physical misfortunes which may occur to himself or others involved with him, should really not operate an automobile. How much longer the motoring public can expect the long-suffering physicians and hospitals to come to their rescue unrewarded is a matter that is almost up to the doctors themselves.

And remember—

"Death begins at forty!"



A *Dangerous* SHADOW
ON THE HIGHWAY . . .

San Francisco Session of A. M. A.

INDIANA PLAN ACCEPTED BY A.M.A. HOUSE OF DELEGATES

FRANK M. GASTINEAU, M.D.

Indianapolis



A certificate of merit was awarded the exhibit of the Indiana State Medical Association at the recent meeting of the American Medical Association in San Francisco. The exhibit was arranged and sponsored by the Publicity Bureau to act as background for the Indiana delegates and to illustrate how Indiana is trying to handle the preventive medicine program.

The exhibit was named "Two Birds with One Stone." A plea for a national health program sponsored and controlled by organized medicine was on one side of the booth; on the opposite side was illustrated a service chart for preventive diseases from the prenatal period up to death. In the center were two large birds of prey, "Disease and Death" and "Socialized Medicine," flanking a map of the United States. Indiana stood out in relief with a statement that "Indiana Proposes a Workable Health Plan for All the People." Our program was outlined in detail with twelve open books. On one side of the book a survey of the subject was illustrated and

on the other a method of control or betterment of the situation was proposed in detail. The subjects chosen were syphilis, pneumonia, diphtheria, maternal mortality, crippled children, highway accidents, occupational diseases, annual physical examination, prevention of heart disease, conservation of eyesight, tuberculosis control and smallpox.

Copies of our state journal were exhibited on the table showing how our program is unfolding month by month. A pamphlet was prepared for distribution to those interested. This contained the philosophy of the plan and some detailed information about each subject. Several thousands of pamphlets were distributed at the booth and to the delegates of the various states.

The booth was always crowded and many lively discussions took place. Only three of the approximately 3,000 persons who visited the booth were frankly hostile to the plan. The overwhelming majority were strongly in favor of the idea. This probably accounts for its ready acceptance by the American Medical Association.

Special Citation



THE SCIENTIFIC EXHIBIT
AMERICAN MEDICAL ASSOCIATION
SAN FRANCISCO SESSION - 1938

ation's house of delegates on the second day of the meeting. We were very much impressed by the interest shown in the project by many officials of other state medical organizations. Requests were made by seven state medical organizations and from numerous lay and sectional meetings to show the exhibit at their annual meetings.

The booth also served as a Hoosier oasis. Many Indiana graduates who are practicing in other parts of the country called in the hope of seeing some of their old classmates. It was the get-together place for Indiana doctors.

I wish to thank all those who cooperated in the venture in helping prepare the material, in giving their time at the booth, and in furthering the cause in many ways. We are deeply indebted to Mr. James Glore, the artist for Indiana University School of Medicine, who illustrated the idea and set up the booth at the convention. The success of the project came as a result of cooperation on the part of the officials of the Indiana State Medical Association and the leadership of our president, Dr. Herman M. Baker.

REPORT OF THE PROCEEDINGS OF THE HOUSE OF DELEGATES AT THE SAN FRANCISCO MEETING OF THE AMERICAN MEDICAL ASSOCIATION, JUNE 13-16, 1938

D. F. CAMERON, M.D.

Ft. Wayne

We are glad to report that Indiana had its full quota of four delegates present at all meetings. Unfortunately, Dr. E. M. Shanklin, our regular delegate, could not be present but his place was well filled by his alternate, Dr. George Dillinger.

The continued expansion of the activities of the American Medical Association in the past few years has complicated greatly its scientific, professional and business relations and has resulted in passing on to the Board of Trustees and the House of Delegates a rapidly increasing and rather burdensome volume of work. At this meeting sessions of 2½ full days were required by the House of Delegates for completion of its work and very much more time in addition was required for the work of the reference committees.

Reports of officers and of the Board of Trustees required a considerable amount of time, and all members should read these reports in order to be properly informed as to the extensive activities of this association. Many resolutions pertaining to the guidance of executive officers of the association and other resolutions bearing on many phases of the activities of the association were presented to the House of Delegates. These resolutions are presented to the various appropriate reference committees for consideration and recommendation, and later the House as a whole takes appropriate action.

Of these activities of the House of Delegates at this session perhaps the most important can be listed as follows:

1. Elected Dr. Rudolph Matas of New Orleans as the recipient of the Distinguished Service Award.
2. In executive session, considered the evidence given and the resolutions proposed by the New Jersey delegates criticizing some activities of the editor of *The Journal of the A. M. A.*

After full hearing the House voted unanimously to reject the New Jersey resolution and

in addition gave (also unanimously) the editor a special vote of appreciation for and confidence in his activities.

(Incidentally this action was considered by all as a vote of censure of the New Jersey Medical Association for its instruction to its delegates without due previous investigation and consideration before broadcasting its complaints through news agencies to the lay press.)

3. Refused to accept the proposal of the Michigan and California delegates recommending that the House be granted power to spend funds of the Association independently of the Board of Trustees, for the purpose of establishing a lobby in Washington and making other expenditures in propaganda.

(It was pointed out by officers of the association that such action would change the status of the association as a not-for-profit corporation.)

4. Reiterated its previous approval of the activities of its Committee on Contraception.

5. Approved a recommendation of the Judicial Council which, among other things, makes it unethical for anyone to give direction for the use of rented radium unless the person giving the direction actually sees the patient on whom the rented radium is to be used.

(This action was taken over the writer's protest and objection. It apparently was adopted at the request of a few radiologists who object to the giving of instruction for the use of rented radium by those who probably are competent in many instances to give instruction. In addition the recommendation of the Judicial Council places the advertising department of *The Journal of the A. M. A.* in a peculiar position, since for years it has carried the advertising of radium rental companies and doctors who state they are glad to give any advice requested regarding the use of radium.)

Perhaps doctors so using this advice need not worry about their possible "unethical" conduct, since the Judicial Council apparently agreed unofficially, when it was pointed out to them, that they had ruled it was "unethical" only for the person to *give* advice under those circumstances, but not "unethical" to *receive* or *seek* the advice!

6. Approved the resolution presented by Dr. Hamer for the Indiana delegates calling attention to the Indiana Plan of fighting disease and socialized medicine by the public education program so well devised by our Bureau of Publicity.

Dr. Frank Gastineau, Dr. Norman Beatty, and our president, Dr. Herman Baker, were especially active in formulating and presenting this plan which received a special certificate of merit.

7. Received the address and accepted the invitation of Miss Josephine Roche, representing the President of the United States, to send official representatives of the Association to the forthcoming meeting of the Public Welfare Committee in Washington.

At the last session, the following officers were elected:

President-elect: Dr. Rock Sleyster, Wisconsin.

Vice-president: Dr. Howard Morrow, California.

Secretary: Dr. Olin West, Chicago.

Speaker of the House: Dr. H. H. Shoulders, Tennessee.

Vice-speaker: Dr. R. W. Fouts, Nebraska.

Dr. Irvin Abell of Kentucky assumed his duties as president of the Association for 1938-1939.

Trustees: Austin A. Hayden, Chicago, and Charles B. Wright, Minneapolis, were elected to succeed themselves.

Judicial Council: John H. O'Shea, Spokane, Washington (to succeed himself).

Council on Medical Education and Hospitals: Frank H. Lahey, Boston (to succeed Frederic A. Washburn, Boston).

The following places have been selected for the next three annual meetings of the Association: St. Louis in 1939, New York City in 1940, and Cleveland in 1941.

In conclusion, the writer wishes to state again that he was impressed by the energy, ability, zeal and devotion displayed by the officers of the Association in general, and by the secretary of the Association and the editor of its *Journal* in particular. Their unpublicized activities are especially important and all members of the Association may rest assured that these men are overlooking nothing that can be done to advance its cause.

Indiana physicians who represented the Indiana State Medical Association were Dr. R. L. Sensenich of South Bend, who is a member of the Board of Trustees of the American Medical Association; Dr. Homer G. Hamer of Indianapolis; Dr. F. S. Crockett of Lafayette; Dr. George Dillinger of French Lick, and Dr. D. F. Cameron of Fort Wayne, delegates for the state association.

INDIANA AT THE SAN FRANCISCO MEETING OF THE AMERICAN MEDICAL ASSOCIATION

THOMAS A. HENDRICKS, Executive Secretary

Indiana State Medical Association

Enthusiastic over the recognition given the Indiana Plan by the House of Delegates, and the certificate of merit awarded by the A.M.A. Scientific Exhibit Committee for the display of the Indiana Plan, the sixty-seven physicians who attended the San Francisco meeting of the American Medical Association found their time absorbed by the interesting meetings and exhibits, and at the end of the week they turned their attention to side-trips and sight-seeing.

Indiana's representatives, headed by their president, Dr. Herman M. Baker, and president-elect, Dr. E. M. Van Buskirk, took an active and prominent part in the deliberations of the House of Delegates and in the scientific sessions which attracted a total of 5,970 registrants for the four days.

The Indiana Plan for preventive medicine, presented by pamphlet, elaborate exhibit, and formal resolution, scored a complete triumph and received a special citation from the national committee on awards. This was an unusual honor inasmuch as such awards and citations of merit usually go to

individuals rather than to organizations. The plan was prepared and presented by the Bureau of Publicity of the Indiana State Medical Association whose official representative at the convention was Dr. Frank M. Gastineau of Indianapolis. Dr. Gastineau, Dr. A. F. Weyerbacher and Dr. Norman Beatty, also of Indianapolis, were in charge of the booth. The theme of the display was that by assuming leadership and waging an aggressive campaign in preventive disease, organized medicine can wipe out the threats of disease and socialized medicine at one and the same time.

RESOLUTION ACCEPTED

Dr. Homer G. Hamer of Indianapolis presented the resolution on the part of the Indiana delegates, composed of Dr. D. F. Cameron of Fort Wayne, Dr. George Dillinger of French Lick, Dr. F. S. Crockett of Lafayette, and Dr. R. L. Sensenich of South Bend. The resolution follows:

WHEREAS, A pressing need exists for the development of a national policy on the part of organized medicine to bring the benefits of preventive medicine to all the people; and

WHEREAS, The medical profession, through its local

county and state medical societies, already has made tremendous progress in developing programs local in scope; and

WHEREAS, A program of professional and lay health education is now functioning successfully in Indiana; and

WHEREAS, The profession in controlling tuberculosis, malaria, typhoid, diarrhea, yellow fever, puerperal sepsis, and other infectious diseases has been largely responsible for the present favorable morbidity and mortality rates; and

WHEREAS, It is essential to make preventive medicine an integral part of organized medicine and individual private practice; and

WHEREAS, In order to put into immediate action a suggestion which has so ably been stated on numerous occasions at this session of the House, that "the attention of State and County Societies should be drawn to the opportunity of assuming a definite leadership in the respective states and counties and directed with the best ideals of medicine and the best interests of the public";

THEREFORE, BE IT RESOLVED, That the House of Delegates of the American Medical Association approve in principle the Indiana plan of health education and preventive medicine and directs the Bureau of Health Education of the American Medical Association to bring this plan to the attention of the medical profession and the lay public through all available channels.

As the first Indiana physician in more than twenty years to serve on the board of trustees of the American Medical Association, Dr. R. L. Senenich of South Bend played a key part in the meeting. Dr. F. S. Crockett of Lafayette served as acting chairman of the legislative committee, and helped to prepare and present the report of that committee before the House of Delegates. Dr. Don F. Cameron of Fort Wayne served on the reference committee on executive session and aided in preparation of the answer to the report of Miss Josephine Roche, chairman of the committee to coordinate federal health and public welfare activities and accepting the invitation to send representatives of the American Medical Association to the Washington conference in July. The executive committee of our Association was represented by Dr. C. H. McCaskey of Indianapolis, and Dr. Howard B. Mettel of Indianapolis represented the Indiana Division of Public Health.

Dr. Herman M. Baker served as a special representative of the American Red Cross. Memorial tributes were read to the late Dr. E. D. Clark and the late Dr. William H. Kennedy, both of Indianapolis, who in past years had served as members of the House of Delegates of the A.M.A.

Indiana was represented on the scientific program by Dr. Walter L. Bruetsch of Indianapolis who was not present but whose paper on "Fever Therapy of Syphilis" was read; Dr. George Gar-

ceau of Indianapolis who spoke on "Fractures"; Dr. A. G. Kammer of East Chicago who spoke on "Medical Supervision of Benzene Plant Workers," and Dr. Thurman B. Rice of Indianapolis who talked on "Sex Education in the Schools" at the joint meeting of the American Medical Association and the National Education Association. Dr. R. N. Harger of Indianapolis was in charge of an exhibit showing "Rapid Methods for the Detection of Poisons for Use in Emergency Cases." This exhibit showed apparatus and some new procedures used in the identification of common poisons in the body.

Mrs. Russell Hippenstell and Mrs. Harry L. Foreman, of Indianapolis, served as official delegates from Indiana to the Women's Auxiliary. Mrs. George Dillinger, French Lick, head of the Women's Field Army of Indiana for the Prevention of Cancer, acted as state representative.

INDIANA PHYSICIANS WHO ATTENDED THE SAN FRANCISCO MEETING

Abel, J. A., South Bend	Baker, Herman M., Evansville
Armington, R. L., Anderson	Banks, Horace M., Indianapolis
	Barnett, Wm. E., Logansport
	Beatty, Norman M., Indianapolis
	Bruner, R. W., Jeffersonville
	Cameron, Don F., Fort Wayne
	Courtney, Thomas E., Indianapolis
	Culbertson, Clyde G., Indianapolis
	Dillinger, George R., French Lick
	Dodds, Wemple, Crawfordsville
	Dollens, Claude, Oolitic
	Eckhart, G. G., Marion
	Edlavitch, B. M., Fort Wayne
	Eshleman, L. H., Marion
	Ferguson, A. N., Fort Wayne
	Fisher, L. F., South Bend
	Fleming, J. C., Elkhart
Foreman, Harry L., Indianapolis	Inlow, William D., Shelbyville
Garceau, G. J., Indianapolis	Kammer, Adolph G., East Chicago
Gastineau, Frank M., Indianapolis	Knoefel, August F., Terre Haute
Giordano, Alfred S., South Bend	Lamey, P. T., Anderson
Gilbert, Ivan, Terre Haute	List, Harold E., Marion
Glock, H. E., Fort Wayne	Logan, Jesse R., Evansville
Hamer, H. G., Indianapolis	Lyon, Marcus W., Jr., South Bend
Hays, Everett L., Indianapolis	Lyon, Martha B., South Bend
Hendricks, Thomas A., Indianapolis	Lyons, Robert E., Jr., Bloomington
Hippensteel, Russell, Indianapolis	McCaskey, Carl H., Indianapolis
Hochhalter, Marian, Logansport	McFadden, Walter C., Shelbyville
Holloway, Wm. A., Logansport	

Over station KGO and NBC blue network, from San Francisco, June 16, Dr. W. W. Bauer, of the American Medical Association, told of the exhibits at the A.M.A. convention and said: "An exhibit from the Indiana State Medical Society sets forth twelve points for a health program to be carried out by state medical societies. This exhibit received a special citation of merit and its principles were approved by the House of Delegates of the American Medical Association. It proposes a plan whereby doctors in their own offices shall carry out the preventive procedures which keep people well and it provides for postgraduate education of the doctor through the study of medical journals, emphasizing one topic each month. It outlines a plan of protective medical service through life from before the cradle down to the grave."

(Continued on page 363)

Are You Insured?

IRVING WILLIAMS

Editor of "Rough Notes"

Indianapolis

"Do you need any insurance today?"

Your answer might quite naturally be, "No, I have insurance." You are remembering that you have a fire insurance policy or two, some kind of automobile policy, a life insurance policy, and maybe an accident policy.



Irving Williams

Insurance is something like an umbrella carried around between showers on a threatening day—considerable of a nuisance until the downpour comes, and then mighty handy to have.

Bills for insurance premiums are about as welcome as tax notices and you vaguely wonder what becomes of the money when you pay them.

The business of the insurance salesman, if you give him a chance to talk about his wares, is to prove to you that the skies are threatening and that you'd better have an insurance policy umbrella handy in case IT happens. IT—fire, windstorm, accident, auto smash-up, damage suit, hold-up, burglary, forgery, embezzlement, or any of the other mishaps that murk up the economic sky. It won't be hard for him to prove that the sky is threatening, but it may be hard for him to convince you that you need all the kinds of insurance rain-sticks he has to sell. The newspapers will support his claim that such things are happening but you may feel there is only a remote chance that they will happen to you.

And you won't need the umbrellas unless it rains.

Really, we don't need fire insurance—unless we have a fire.

The agent tells us we need automobile insurance and because the papers every day are blaring the fact that certain unfortunate individuals are continuously finding this out, we buy automobile insurance.

Maybe we don't believe the agent when he tells us we need public liability insurance to cover mishaps evolving from the practice of our profession or from other daily contacts with the public, and we do not take him very seriously until some judge tells us that we need it right now, to pay a damage judgment he is handing down against us.

The milk man whom we may occasionally meet in the early morning, having tripped over the garden hose which we left draped across the sidewalk, may be the one to tell us we need \$1,100 of

public liability insurance to pay for his stay in the hospital and continuing inability to earn a living.

The occasional member of this medical profession who maintains an office in an industrial district may be introduced by a mob of rioting strikers to the need of a kind of insurance which covers such cases—riot and civil commotion insurance.

The physician with an office on the ground floor may discover the need for what is known as aircraft and motor vehicle insurance when a careless auto or truck driver smashes through his office front and ruins the contents, including instruments and furniture and fixtures. Such accidents are occurring with increasing frequency.

EXTENDED COVERAGE ENDORSEMENT

In all branches of insurance the modern tendency is to offer a combination of different coverages in a single policy contract. One of the most recent of these is what is known as the extended coverage endorsement; by attaching this to the fire policy, protection is extended to include loss from tornado, windstorm and hail, damage resulting from strikes, riots and explosions, from aircraft and motor vehicles, and from smoke originating in a defective oil-burning furnace. This combination policy is proving very popular.

Not infrequently a physician or surgeon may expend a considerable sum in arranging his office space for the sake of efficiency by the use of partitions which he cannot persuade his landlord to install for him. This investment can be protected from loss due to fire by attaching an improvements and betterments endorsement to the policy.

Maybe a very advantageous lease is enjoyed by the physician tenant, having been effected for a long term during a rental depression. With returning prosperity, rentals may zoom far above the rate paid by the lessee. In event of fire, the lease is automatically canceled, and the tenant will have to seek other quarters at a higher rental rate. This loss, due to difference in rents, can be taken care of by a leasehold interest form attached to a fire policy.

If office fixtures or equipment are not fully paid for, this should be signified in connection with the fire insurance by attaching to the policy a loss payable clause stipulating that the insurance is payable to the insured and to a designated other party "as his interest may appear."

A physician friend of the writer left his instrument case in his car as he stopped to see a patient;

when he returned the car was gone. Some days later the police notified him the car had been located but the instruments had disappeared and were never recovered. Because such losses are apt to occur, specific property floater policies covering surgical instruments are of practical worth. This is known as an "all risks" cover and it is as broad as the name implies in that it does cover loss from all risks with such few and logical exceptions as wear and tear, deterioration, and war hazards.

These "floater policies" are designed to insure specified property while on the premises described in the policy or anywhere else.

Not only may surgical instruments be insured under these policies but the personal effects and property of the holder and members of his family residing with him. Cameras, golf equipment, guns, paintings and other objects of art, stamp and coin collections may be insured under all risks floater policies; also parcel post or express shipments as well as rail and truck cargoes, and neon signs may be insured.

AUTOMOBILE INSURANCE

The comprehensive automobile policy, a recent development, is effected by endorsement attached to a fire and theft policy, extending its provisions to include practically all kinds of property damage except collision, which may be added for additional premium. Glass breakage, damage caused by windstorm, flood, hail, defacing paint, damage to upholstery and by vandalism or maliciousness are all included. This is coming to be universally used.

Insurance which covers loss that may result because of liability incurred through injury of other persons by operation of an automobile is a particularly important form of protection as it not only pays for judgments rendered in court against the car owner but it also provides capable counsel to represent the policyholder in court, and pay trial costs.

Insurance is likewise obtainable which covers one who is driving a car other than his own and where another person may be using his own car in behalf of insured's interests. Another type of policy does not provide for legal defence and pays only after judgment has been rendered against the insured. With liability for personal injuries is also written insurance against loss that may arise where property of others is damaged or destroyed.

CASUALTY INSURANCE COVERAGES

Most readers of this journal are familiar with physicians' and surgeons' liability insurance, no doubt, as it is especially designed to provide the insured practitioner with defense in event of legal procedure and indemnity for loss and expense resulting from claims for damages on account of any malpractice, error or mistake made, or alleged to have been made, by insured in the practice of his profession, or by any assistant acting under

his directions. Court records demonstrate the practical value of this kind of insurance. Uncertainty as to the amount of damages that may be assessed in such cases is a continuous threat against the entire net worth of those who practice medicine or surgery.

Protection in this area of activity is of growing importance. The public is becoming more and more claim conscious and there are too many unscrupulous lawyers, unfortunately, who capitalize on every chance to provoke claims, well grounded or not, for the split they hope to win from a verdict for damages. In a recent address before the American Bar Association of Kansas City, Mo., Hugh D. Combs, vice-president of the United States Fidelity and Guaranty Company, of Baltimore, Md., cited many cases involving claims arising from alleged malpractice, especially those resulting from the use of the newest scientific apparatus available to physicians and surgeons today, such as x-ray, radium, hyperpyrexial machines, and many kinds of hypodermic medications.

In line with the foregoing is a similar form of protection known as owners', landlords' and tenants' liability insurance, which supplies similar service where the policyholder is faced by claims for damage in the event members of the public are injured in his office or home, due to such accidents as slipping on rugs, tripping over furniture or other objects.

Personal, sports and residence liability is a similar coverage which adds to the foregoing, protection from loss due to personal injury of others in accidents that may occur on the golf course for which insured may be held responsible, or while engaging in other sports such as bowling, tennis, baseball, fishing, hunting and marksmanship.

The State Industrial Board, of whom we may know more intimately than only by rumor, may tell us that we are needing a certain amount of workmen's compensation insurance to pay for injuries suffered by a painter who fell from a ladder while painting our house. In Indiana physicians and surgeons need this safeguard against serious costs that may result from injuries suffered by salaried assistants.

Office building burglary insurance is just what the name implies and offers insurance against loss due to burglary or robbery and physical damage to property resulting therefrom. It covers loss of money, securities and other property defined in the policy and where loss occurs away from the premises when the insured property is taken from a custodian representing insured. Loss of contents of an office safe due to burglary and resulting damage to furniture and fixtures may be covered by a mercantile safe burglary policy.

Securities kept in a safe deposit box are afforded additional protection by safe deposit box burglary and robbery insurance. Whether the rate therefor is relatively high or low is a good indication as to how the safe depository rates for efficiency

in the opinion of the informed underwriter. The more the insurance may cost the more is the apparent need for it, which may be said of any insurance. Another type of policy is also available (securities insurance) which indemnifies for loss of securities located in a specified place from causes other than burglary.

If it is desired to insure against loss that might be caused by hold-up of the office clerk or secretary on the way to the bank with the daily deposit or returning with cash, this may be done through a messenger hold-up policy. Securities and other defined property are also covered as well as cash.

DISABILITY INSURANCE

Since skill of hand, clearness of eye, and physical fitness in general are essential to success in the practice of medicine or surgery, disability insurance is an important type of protection in this classification. Continuance of income from one's profession may be and commonly is necessary to carry on any life program both for the individual and his family dependents. One may have an ample and comprehensive life insurance set up which will provide education for children, paying of the mortgage and income for widow, or both insured and his wife in their declining years; but if the income paying the premiums required to keep this program in force, is cut off through permanent or even partial disability as result of an accident, the whole structure may collapse. It is wise, then, to protect that income by so-called accident and health insurance.

In those cases where one may have a considerable fund of securities and other forms of investment which it is necessary to entrust to others for handling and management, a fidelity bond is naturally provided.

Depositors' and commercial forgery insurance protects the insured individual and the bank with which he may do business against loss resulting from forgery of checks, drafts, notes, and like promises to pay.

The foregoing listing includes the principal coverages which are applicable to the needs of physicians and surgeons. Like a hotel menu, it contains more items than the individual may feel he can afford to order. He selects those which appeal to his judgment as being most important, and takes the chance that he may never "need" the others.

Prices for insurance vary according to quality and measure of protection afforded. Also, insurance companies differ as to charters and plan of operation, ability of management, attitude toward claims and financial responsibility. Discrimination may well be exercised in the selection of companies, as the best is none too good in event of loss.

Too, it is advisable to select an insurance agent counsellor carefully and then rely upon his advice as to one's insurance needs. The reputable and competent agent will gladly review the insurance

needs of a client or prospect, make a survey or audit of present insurance carried and submit a statement of what he recommends as being needed, this without charge, whether his recommendations are followed or not.

Read your insurance policies, and if you do not understand all the conditions and provisions, ask your agent to explain. That is what he is paid for and what he wants to do. Satisfied customers are his capital in trade.

"DOC QUIZ" ASKS—

Question 1: What is the first treatment for a severely injured patient?

Question 2: What is the next important treatment for a severely injured patient?

Question 3: What is the most important procedure for the prevention of tetanus after an injury?

Question 4: What maxim if applied in the emergency treatment of patients with fractures will prevent needless complication?

Question 5: Is methenamine alone a good urinary antiseptic?

Question 6: What medication should be given for hematuria?

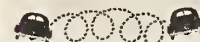
(Answers on page 363)

DO YOU LIKE DOC QUIZ? DO YOU WANT HIS COLUMN CONTINUED? LET US HAVE YOUR OPINION AND YOUR SUGGESTIONS AND CRITICISMS. ADDRESS DOC QUIZ IN CARE OF THE JOURNAL, 1021 HUME MANSUR BUILDING, INDIANAPOLIS, INDIANA.

When you're **ROLLING ALONG**
think about **ROLLING OVER!**



At 25 m.p.h., a moving car has about enough energy to roll over once.



At 50 it has developed not TWICE, but FOUR times the energy—enough to roll over four times.



At 75 it has developed enough energy to roll over NINE times, after which the car and its occupants probably would be torn to pieces.

The Postgraduate Meeting



Dr. L. A. Ensminger, Dr. H. W. Greist, Dr. V. Stefansson and Dean W. D. Gatch

With the greatest registration ever obtained at any of the postgraduate meetings, the sixth annual postgraduate course was held at the Indiana University Medical Center, May 23 to 27.

The University and the Indiana State Medical Association, joint sponsors of the five-day course, opened the series of lectures and clinics to the public as a means of furthering general education in the developments in medical research and practice.

Another innovation in the short course was the introduction of military medical practices into the schedule. Colonel Wilson Carlisle Von Kessler, in charge of the United States Army medical service in Indiana invited 500 medical reserve officers in the state to attend.

The course opened at eight o'clock in the morning, Monday, May 23rd, with clinics on gynecology, obstetrics, gastro-intestinal diagnosis and treatment, and on the ear, nose and throat. Indiana members of the profession had leading parts in these and subsequent clinics. Captain Clinton I. Wasson of Muncie lectured on "Chemical Warfare." Laboratory demonstrations throughout the afternoon dealt with diabetic acidosis and coma, therapeutics, cancer, and appendicitis. County medical society secretaries attended a dinner Monday evening and Colonel Frederick H. Turner spoke at a general meeting Monday night on "Military Preparedness." Clinics Tuesday morning

were in the field of dermatology, medicine, surgery, and cardiovascular-renal problems.

Dr. Vilhjalmur Stefansson of New York, noted explorer and expert on dietetics, lectured before the entire group Tuesday morning on "Russell-Sage Feeding Experiments." Laboratory demonstrations were given throughout the afternoon on syphilis in pregnancy, hemorrhage associated with pregnancy, ovarian hormones, sulfanilamide in urinary infections, mandelic acid in urinary infections, and accessory factors in urinary infections. A clinicopathological conference terminated the afternoon program and Dr. Stefansson spoke at the night session on "The Natural Diet of Man."

Clinics Wednesday morning and lectures Wednesday afternoon were followed by a dinner of the State Pediatric Society and of Nu Sigma Phi for women physicians. Dr. James Plant of Newark, N. J., lectured Wednesday night on "Juvenile Delinquency."

Pediatrics dominated the Thursday program. A round table discussion at the general session was led by four eminent men in this field, Dr. Phillip C. Jeans, Iowa College of Medicine; Dr. Charles McKhann, Jr., Harvard University



Attendants at one of the lectures

Medical School; Dr. Arthur Hertzler, professor of surgery at the University of Kansas School of Medicine, and Dr. Henry G. Poncher, University of Illinois College of Medicine. Dr. Hertzler spoke at the general meeting Thursday night on "Chronic Goiter Heart," and his philosophical wit was as entertaining to the audience as his scientific observations were instructive.

MILITARY MEDICINE ON PROGRAM

Military medicine had a prominent place on



Dr. V. Stefansson

Friday's program, with the showing of a moving picture, "Medical Regiment in Action," and a lecture by Lieut. Col. Don G. Hilldrup of the Fort Benjamin Harrison medical corps, and one by Captain Joseph S. Skobba of the U. S. Medical Reserve, Central State Hospital. The final address was given Friday evening by Brig. Gen. Wallace deWitt, assistant general surgeon of the United States Army, who spoke on "Organization and Administration of Military Hospitals."

More than 70 lectures were given in the various clinics held at the morning sessions of the course.

REGISTRATION

Of Indiana's ninety-two counties, only eight have failed to be represented at any of the postgraduate meetings. Total registration this year was 542, with 68 counties being represented. Previous registrations have been:

<i>Year</i>	<i>Attendance</i>	<i>Counties</i>
1933	73	65
1934	83	32
1935	184	57
1936	238	48
1937	492	62

This year's representation exceeds all previous years in number of physicians in attendance and in number of counties represented. The registration included two dentists, six representatives from the regular Army, and seven physicians from out-of-state.

SECRETARIES DINNER

Discussion of the American Medical Association survey in regard to the care of all the people was the principal feature of the dinner meeting attended by more than fifty secretaries and officers of the Indiana State Medical Association at the Riley Hospital on Tuesday evening, May twenty-fourth, during the postgraduate week. The secretaries and officers were dinner guests of the Indiana University School of Medicine, the guest of honor being V. Stefansson, the Arctic explorer. Dr. A. M. Mitchell, of Terre Haute, chairman of the Secretaries' Conference Committee, presided at the meeting and introduced in turn Dr. Herman M. Baker, president of the Association, and Dr. W. D. Gatch, dean of the Indiana University School of Medicine, and other speakers. During the discussion of the survey, Dr. Mitchell spoke of the report which was made by the survey committee of the Vigo County Medical Society, recommending that the physicians in Vigo County keep an accurate record of their indigent work for a period of six months in order that the information which it is necessary for each individual physician to have in filling out the report blanks may be as nearly correct as possible. The comment was made that at the present time it is difficult for many physicians to fill out these blanks properly because usually physicians do not keep accurate records

of their indigent work. Among those who discussed the subject was Dr. Alfred Ellison who is chairman of the survey committee for St. Joseph County. Dr. Ellison stated that the committee was carrying out the survey in St. Joseph County and contact was being made with each individual physician. He stated that although some physicians might not be able to tell the exact amount of indigent work they were doing, those in charge of the survey in St. Joseph County felt that the figures would balance out and reflect very clearly the actual facts in the case in that community when the survey was completed. Dr. Ellison also spoke of the fact that the society had made arrangements for the employment of a full-time secretary.

It was the consensus that in those counties where the survey had already been started, the work should be continued along present lines, but that in counties where the survey has not been started, it would be well to have the physicians keep a special record of their indigent work over a certain period of time in order that their figures upon this aspect of medical service may be as nearly accurate as possible.

The general consensus was that the executive committee and officers should make a report to each county medical society upon the methods of carrying out this survey, based upon the action taken by the American Medical Association meeting at San Francisco.

Those who attended the meeting are: E. O. Asher, New Augusta; A. F. Weyerbacher, Indianapolis; M. A. Austin, Anderson; D. S. Quickel, Anderson; J. B. Maple, Sullivan; B. G. Keeney, Shelbyville; J. C. Burkle, Lafayette; Carl M. Davis, Valparaiso; C. L. Boyd, Vincennes; H. J. Norton, Columbus; George Dillinger, French Lick; Alfred Ellison, South Bend; Ruth V. Kirk, Indianapolis; D. A. Bartley, Indianapolis; Norman M. Beatty, Indianapolis; C. V. Rozelle, Anderson; Frank R. Albertson, Trafalgar; K. K. Kraning, Kewanna; Hugh S. Ramsey, Bloomington; G. H. Haggard, Hope; J. H. Grimes, Danville; W. T. Lawson, Danville; Julia S. Thom, Gosport; J. W. Thom, Gosport; D. W. Paris, Kokomo; Max D. Garber, Warsaw; H. F. Zwick, Decatur; W. A. Gitlin, Bluffton; J. K. Jackson, Aurora; A. L. Spinning, Covington; C. B. Emery, Bedford; G. H. Kamman, Seymour; M. C. McKain, Columbus; L. H. Bear, Vevay; H. O. Williams, Kendallville; A. G. Blazey, Washington; M. C. Pitkin, Martinsville; H. G. Hamer, Indianapolis; A. E. Stinson, Rochester; S. C. Darroch, Cayuga; J. M. Cotton, Tipton; A. E. Stouder, Tipton; Herman M. Baker, Evansville; W. D. Gatch, Indianapolis; V. Stefansson, New York; A. M. Mitchell, Terre Haute; J. A. Davis, Flat Rock; F. G. Greene, Bloomington; Russell Sage, Indianapolis; C. S. Culbertson, Indianapolis; Howard B. Mettel, Indianapolis; C. J. Clark, Indianapolis; Robert Moore, Indianapolis; John Palm, Brazil.

Under the Capitol Dome

INCIDENCE OF SYPHILIS IN PRISONERS

Twenty-one per cent of the 615 men admitted to the Indiana State Prison during the last fiscal year showed a positive reaction to the Wassermann test, according to the report of Dr. P. H. Weeks, prison physician, for the fiscal year which closed a year ago. Copies of the prison published report were received recently at the office of Governor M. Clifford Townsend.

"Many of the cases afflicted with syphilis were of long standing—cases that had not been properly treated," Dr. Weeks' report stated. "The rigid routine system of treatment for venereal diseases inaugurated several years ago is still being strictly adhered to. Clinics for the treatment of syphilis are conducted at the Hospital twice a week. All cases appearing before the Parole or Clemency Board receive a mental and physical examination and a statement submitted including facts regarding venereal disease—if adequate treatment has been received, etc."

Entrance examinations were given 640 prisoners, including the 615 new admissions, 6 admitted to the Indiana Hospital for the Insane Criminal, 2 admitted for safe keeping, 7 transferred from the reformatory, 8 transferred from the prison to the hospital for insane criminal, and 2 transferred from the reformatory to the hospital.

The examinations showed: Insane (including 2 dementia praecox), 18; feeble minded, 6; giving history of previous convictions, 424; giving history of gonorrhea, 180; giving history of syphilis, 139; giving history of chancre, 5; with gonorrhea upon admission, 26; with syphilis upon admission, 123. Forty-nine per cent of the men classed as new entrants for examination purposes gave history of venereal disease.

With approximately 2,537 men as prisoners in the institution, the prison doctor's report showed that 45,762 cases of illness were treated in the daily "sick line" during the fiscal year, while 5,475 were treated in the sick cell. Treated in the prison hospital were 1,165. Sixty-nine major operations were performed.

Twenty-two natural deaths occurred in the prison during the year's period; in addition there was 1 suicide, and 1 death from an injury resulting from an accidental fall, and 6 were electrocuted according to law.

SURVEY OF INDUSTRIAL HAZARDS

The state's survey of hazards in Indiana industry will begin in July, according to plans announced by Dr. Verne K. Harvey, secretary of the Indiana State Board of Health. It will be con-

ducted by the newly organized Industrial Bureau of the health board and is designed to provide a good cross section of health conditions in the state's factories. Dr. Harvey said bureau representatives will not be able to get into every plant, but that a close check will be made in industries known to have hazardous health conditions. Chief officers of the bureau are Dr. Louis W. Spolyar and John S. Wiley, engineer.

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, has returned to his desk in the Statehouse Annex, following an absence of about four weeks made necessary by injuries received in an automobile accident in Indianapolis.

"DOC QUIZ" ANSWERS—

(Questions on page 360)

Answer 1: Arrest hemorrhage.

Answer 2: Treat patient for shock.

Answer 3: Thorough and complete cleansing of the wound, allowing it to remain open.

Answer 4: Immobilization of fractures before any mobilization of the patient.

Answer 5: No. It is inactive in alkaline or neutral urine. Always give it in conjunction with enteric coated ammonium chloride tablets.

Answer 6: Calcium lactate may be given in 10 grain doses four times a day, but the important thing is to determine exactly the cause of the bleeding. Cystoscopy is required for this in many cases.

REGISTRANTS AT A.M.A. MEETING

(Concluded from page 357)

McIntyre, Charles J., Indianapolis	Sensenich, R. L., South Bend
Mentzer, S. E., Monroeville	Sharp, W. L., Anderson
Mettel, Howard B., Indianapolis	Short, John T., Fort Wayne
Montgomery, Lall G., Muncie	Stygall, James H., Indianapolis
Munk, C. E., Kendallville	Thornton, H. C., Indianapolis
O'Rourke, Carroll, Fort Wayne	Van Buskirk, E. M., Fort Wayne
Pace, Jerome V., Rockville	Van Reed, Earl, Lafayette
Page, Irvine H., Indianapolis	Weinberg, Samuel, Marion
Peck, Franklin B., Indianapolis	Weyerbacher, A. F., Indianapolis
Rawles, Lyman T., Fort Wayne	Wheeler, Homer H., Indianapolis
Rhamy, B. W., Fort Wayne	Whitehead, J. M., Indianapolis
Rice, Raymond M., Indianapolis	Winsteadley, Wm. C., New Albany
Rice, Thurman B., Indianapolis	

Voice of the Doctor

WORK OF THE COUNCIL

To the Editor:

A few days ago at one of the district meetings, a physician facetiously greeted me with, "Well, Austin, does the State Council still consider itself seriously, or has it really done anything to promote the welfare of the profession?"

The State Council, however, needs to make no apologies for any sins of omission or commission, but it does have to apologize continually for the fact that the members are still drinking what they think is pre-War stuff and dreaming about God in his heaven and that it's all right in this world! The two Council meetings that I have attended annually for the past fourteen years gave me only a fleeting glance of the work done in the state office. I did not realize the necessary routine to gather information and consider all the problems brought to its attention (all of which affect the profession) until as chairman of the Council I have had a place on the Executive Committee and have had to devote an entire day each month to the deliberations of that committee. At the last meeting we worked from 9:00 a. m. to 4:00 p. m., and passed upon sixty-four separate items, utilizing even the lunch hour to have outside guests inform us as to special matters which had been turned over to us and to them for investigation.

I would like to conduct a "Doctor Quiz" column myself and ask this physician and others if they can answer some of the following questions which were brought to the attention of the Executive Committee at its last meeting, May 8th.

1. What work is required to take care of memberships?
2. What work is required to arrange a state meeting?
3. What work is required to arrange district meetings?
4. What do you know about the new obstetric education program?
5. What do you know about the crippled children's district clinics?
6. What do you know about osteopathic recognition for government employees?
7. What is the present set-up for state industrial insurance?

8. What lay groups are sponsoring hospital insurance?
9. What is the background of health insurance cooperatives?
10. What Indiana corporation has a full time doctor furnishing 1,700 employees and their families his services for \$250 per month?
11. What reactions have the newspapers shown to the A. M. A. policies?
12. What do you know about the farm security administration health program?
13. What information have you concerning irregular practitioners extending their work beyond their licensed privileges?
14. What has been done in Iowa to stop this?
15. What county societies are considering full time secretaries?
16. Have you a county license to practice issued in the county in which you live?
17. What is the national program for syphilis control?
18. How will it affect the private practitioner?
19. What do you know about the food handler's examinations?
20. Is a Wassermann blood test required?
21. How is the A.M.A. medical care survey being considered?
22. What is the background of the cancer campaign?
23. What and how does any of the above affect us?

M. A. AUSTIN, M.D., Anderson.

The Outline of INDIANA'S PLAN IN REGARD TO HIGHWAY ACCIDENTS

1. A study by Organized Medicine of the causes of death from highway accidents.
2. Assist the law enforcement agencies in reducing the hazards of the careless and drinking driver.
3. Aptitude test on the repeating offenders.
4. Probationary period for young drivers.
5. Cooperate with the American Red Cross in first aid instruction.
6. Filling station attendants to be given instruction in first aid.
7. Develop protection for the doctors and hospitals from irresponsible injured.

Deaths

Carl Philip Schoen, M.D., of New Albany, died June 9th in a Boston hospital where he had gone for surgical attention. Dr. Schoen was thirty-six years old and since beginning his practice in New Albany in 1931 had gained an enviable reputation for his surgical skill. He graduated from the University of Louisville, School of Medicine, in 1926, and served five years as resident surgeon of the Louisville city hospital, after which he became associated in practice with Dr. William H. Garner of New Albany. Dr. Schoen was a Fellow of the American College of Surgeons, and a member of the Floyd County Medical Society, the Indiana State Medical Association, and the American Medical Association.

John W. G. Stewart, M.D., of Wabash, died May seventeenth, aged seventy-six years. Graduating from Hahnemann Medical College and Hospital in Chicago in 1889, Dr. Stewart began his practice in Wabash in the same year and had continued his practice there although he had gradually retired during recent years. Dr. Stewart was a member of the Wabash County Medical Society, the Indiana State Medical Association, and the American Medical Association.

William H. Fuller, M.D., of Friendship, was killed in an automobile crash, June second. Dr. Fuller was sixty-six years old. He graduated from the Cincinnati College of Medicine and Surgery in 1895.

Amzi Weaver, M.D., of New Albany, died June sixth, at the home of his son, Dr. W. W. Weaver in New Albany, after a long illness. Dr. Weaver was sixty-four years old and had practiced medicine in southern Indiana for many years, the last eighteen of which were spent in New Albany. He had served as superintendent of Harrison county schools from 1894 to 1902, then studied medicine in Louisville, graduating from the Kentucky School of Medicine, Louisville, in 1904. He was a member of the Floyd County Medical Society, the Indiana State Medical Association, and the American Medical Association.

William L. Starr, M.D., of New Albany, died June fourth, following a long illness. Dr. Starr was seventy-nine years old. After graduating from the University of Louisville School of Medicine in 1881, Dr. Starr began his practice in New Albany where he had practiced for more than fifty-five years. In September of 1937, Dr. and Mrs. Starr observed their fiftieth wedding anniversary in their home where they had resided for forty-eight years. For twenty-two years, Dr.

Starr had held the office of coroner of Floyd county and at one time had served as secretary of the city board of health and as county health commissioner. Dr. Starr was the last charter member of the Floyd County Medical Society, was an honorary member of the Indiana State Medical Association and a member of the American Medical Association.

Isaac Wright Short, M.D., of Elkhart, died June fourth, aged seventy-four years. Dr. Short had been ill for the past two years. Graduating from Bellevue Hospital Medical College in 1888, he began his practice in Elkhart in April of that year, and had practiced there continuously until his retirement. Dr. Short was an official surgeon for the New York Central railroad in the Elkhart district for more than forty years, and had served three appointments as secretary of the Elkhart board of health. Dr. Short was an honorary member of the Elkhart County Medical Society and of the Indiana State Medical Association and was a member of the American Medical Association.

Henry W. Schrock, M.D., of Lagrange, died June third, aged eighty-three years. Dr. Schrock was the oldest practicing physician in Lagrange county and was ill only a short time preceding his death. He began his practice in Indiana at Middlebury in 1874, later practicing at Shore where he also served as the first postmaster, then at Shippshewana, and finally at Lagrange where he went in 1894. He had taught school, studied medicine, and graduated from the Medical College of Ohio, Cincinnati, in 1881. Dr. Schrock was a member of the Lagrange County Medical Society, the Indiana State Medical Association and the American Medical Association.

Edwin J. Lent, M.D., of South Bend, died May thirty-first, at his summer home in Picton, Ontario, which was also his birthplace. He was sixty-seven years old. Dr. Lent graduated from Queen's University Faculty of Medicine, Kingston, Ontario, and began his practice in Lakeville, Indiana. After postgraduate work in New York City, Dr. Lent moved to South Bend where he specialized in diseases of the eye, ear, nose and throat. In 1919, Dr. Lent cooperated in organizing the South Bend Clinic of which he was president for many years. During the World War, Dr. Lent was given the commission of captain and was stationed at Walter Reed Hospital in Washington, D.C. He was a member of the American Academy of Ophthalmology and Otolaryngology, a Fellow of the American College of Surgeons, a member of the St. Joseph County Medical Society, the Indiana State

Medical Association and the American Medical Association.

Everett Nathaniel Bennett, M.D., of Kokomo, died June second, aged fifty-two years. Dr. Bennett graduated from the Western Reserve University School of Medicine in 1915. He entered the medical service of the U. S. Army in 1918, was sent to France, and was in active service with the 315th ambulance company, returning to the United States in June, 1919. Dr. Bennett had been active in Legionnaire work and was elected commander of the Kokomo post in 1932. He was a member of the Howard County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Amos Carter, M.D., of Williams Creek, died May thirtieth, at the home of his daughter. Dr. Carter was for eleven years superintendent of the state sanitarium at Rockville and had been a practicing physician for nearly a half century. He was eighty-five years old. He was graduated from Earlham College, and from the Indiana Medical College, Indianapolis, in 1878. He practiced medicine at Plainfield for a number of years and was official physician for the State Boys' School at Plainfield. In 1919 he was made superintendent of the state sanitarium at Rockville and he remained in that position until 1930. Dr. and Mrs. Carter celebrated their sixtieth wedding anniversary a few months ago. Dr. Carter was an honorary member of the Hendricks County Medical Society, the Indiana State Medical Association, and a member of the American Medical Association.

Ira Jay Gill, M.D., of Rosedale, died May twenty-sixth, aged seventy years. Dr. Gill graduated from the Eclectic Medical College of Indiana, Indianapolis, in 1903, and began his practice in New Lebanon that year. Later he practiced in Dugger and in Mechanicsburg and located permanently in Rosedale in 1925. Dr. Gill had been a member of the Parke-Vermillion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Charles William Schwartz, M.D., retired physician of Huntingburg, died May twenty-second, after a brief illness. Dr. Schwartz was eighty-seven years old. Born in Germany, Dr. Schwartz came to America in 1852. He graduated from the University of Louisville, School of Medicine, Louisville, Kentucky, in 1874, and that same year established his practice in Huntingburg. He served two terms as mayor of Huntingburg and was the only Republican mayor ever elected in that city. Dr. Schwartz was a member of the Dubois County Medical Society, the Indiana State Medical Association and the American Medical Association.

News Notes

Miss Marie L. Cook, of Indianapolis, and Dr. Lacey L. Shuler, of Indianapolis, were married May twenty-fifth.

Miss Jeanette Erlewine, of Marion, and Dr. William G. Rhorer, of Marion, were married June eighteenth.

Miss Mary Louise Briles, of Indianapolis, and Dr. Hugh K. Thatcher, Jr., of Indianapolis, were married May fourteenth.

Miss Margaret Manley, of Fowler, and Dr. Virgil Scheurich, of Oxford, were married May twenty-seventh.

Dr. Harold T. Brown has gone from Indianapolis to Plainfield where he will be associated with Dr. C. B. Thomas.

Dr. O. A. Hall, of Eaton, has moved to Muncie where he will be associated with Dr. Charles L. Botkin.

First Lieutenant C. K. Hepburn, Rensselaer physician, and First Lieutenant Wayne W. Houser, Monon physician, have been advanced in the ranks of the Indiana National Guard; they have been commissioned as captains of their companies.

Miss Jane Rhue, of South Bend, and Dr. Gerald H. Somers, of Fort Wayne, were married June eighteenth. They will reside in Indianapolis where Dr. Somers has an interne appointment at the Indianapolis city hospital.

Dr. Walter L. Bruetsch, research director at Central State Hospital, has been granted a three months leave of absence to study the technic of treatment of dementia praecox with metrazol and insulin shock treatments in Eastern institutions.

Dr. Warren S. Tucker is associated with Doctors J. I. Mitchell and I. E. Huckleberry at Salem, Indiana. Dr. Tucker has just completed his internship at the San Diego County General Hospital, San Diego, California.

Dr. Henry S. Leonard, of Indianapolis, sailed May seventh for a two months' tour in Europe with a group of physicians who will visit clinics in various countries.

A public mass meeting at the Shrine auditorium in Fort Wayne May nineteenth was addressed by Dr. R. A. Vonderlehr of the U. S. Public Health Service. His subject was "Syphilis—America's Hidden Menace."

Dr. E. B. Mumford, of Indianapolis, presented a paper on "A New Type of Treatment in Osteoporosis" at Atlantic City during the meeting of the American Orthopedic Association.

Dr. M. A. Austin, of Anderson, attended the forty-first reunion of his class at Chicago University, June eighth. The reunion was held in connection with commencement exercises at the university.

Miss Helen Teal, executive secretary of the Indiana State Nurses' Association, will be on leave of absence through June, July and August. Mrs. Margaret Culbertson, R.N., will serve during Miss Teal's absence so that their work may continue uninterrupted.

Dr. and Mrs. W. F. Hughes attended the commencement exercises at Johns Hopkins Medical School in Baltimore, June fourteenth, when their son, William, graduated. He has received an appointment as intern in the Wilmer Eye Hospital for next year.

Dr. A. N. Anderson was elected president of the Fort Wayne Academy of Medicine and Surgery at the organization's annual banquet, May tenth. He succeeds Dr. W. C. Wright. Other officers include Dr. O. J. Miller, vice-president, Dr. H. V. Scott, secretary-treasurer, and Drs. L. B. Hanselman and W. C. Wright, directors.

The Dubois County Medical Society sponsored a public lecture on the subject of socialized medicine and the prevention and cure of cancer, May twenty-fourth, in the Huntingburg High School gymnasium. Dr. E. E. Padgett, of Indianapolis, was the principal speaker.

Dr. Henry F. Beckman, of Indianapolis, has been given the annual award of merit of the Northwestern University Alumni Association in Indian-

apolis, "in recognition of worthy achievement which has reflected credit upon Northwestern University and her alumni." The award was given Dr. Beckman for his contributions in the field of medicine and surgery.

Dr. H. W. Eikenberry, of Peru, has been made president of the Indiana Institute of Homeopathy. Other officers are Dr. A. W. Holcombe, Kokomo, first vice-president; Dr. L. M. Slabaugh, Napanee, second vice-president; Dr. James M. Hicks, Huntington, secretary; and Dr. Frank A. Beardsley, Frankfort, treasurer.

Dr. Floyd T. Romberger, Sr., of Lafayette, was the guest of Cincinnati anesthetists at the Alms Hotel, in Cincinnati, May twenty-sixth. Following a dinner meeting, Dr. Romberger addressed the group on the topic, "Modern Professional Anesthesia."

Dr. Howard A. Stellner has moved from Evansville, where he was a member of the staff of the Evansville state hospital, to Chillicothe, Ohio, where he will be on the staff of the United States Reformatory. Dr. William C. Strang replaces Dr. Stellner at Evansville.

The 17th annual scientific and clinical session of the American Congress of Physical Therapy will be held cooperatively with the 22nd annual convention of the American Occupational Therapy Association, September 12, 13, 14, and 15 at the Palmer House in Chicago. Detailed information may be obtained by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

New officers of the Fort Wayne (Allen County) Medical Society were elected at the May twenty-fourth meeting. Dr. H. V. Blosser was made president, Dr. L. W. Elston (re-elected), vice-president, Dr. R. L. Hane (re-elected), secretary, and Dr. E. L. Cartwright (re-elected) treasurer. Three physicians named to the board of trustees were Drs. D. F. Cameron, L. T. Rawles, and R. H. Miller. Dr. M. R. Lohman and Dr. W. C. Wright were made delegates to the state convention.

Dr. F. R. Henshaw, dean of the Indiana University School of Dentistry, died May twenty-seventh. Dr. Henshaw had been ill two years with heart disease. He was named dean of the Indiana Dental College in 1914, a position he retained when the school became part of Indiana

University in 1925. He was a member of the State Board of Dental Examiners for thirteen years and had served as an officer in the National Association of Dental Examiners. Dr. Gerald Timmons, of Indianapolis, has been made acting dean to succeed Dr. Henshaw.

New officers have been elected for the Woman's Auxiliary of the Marion County Medical Society. They are: Mrs. George W. Bowman, president; Mrs. H. A. Van Osdol, president-elect; Mrs. Byron K. Rust, first vice-president; Mrs. Verne K. Harvey, second vice-president; Mrs. Fred T. Gifford, third vice-president; Mrs. William M. Dugan, recording secretary; Mrs. Robert D. Howell, corresponding secretary; Mrs. A. M. Hetherington, treasurer, and Mrs. Russell J. Spivey, publicity.

SCULPTICOLOR OF FILDES' MASTERPIECE GOES TO ROSENWALD MUSEUM

The \$150,000 reproduction of the Sir Luke Fildes masterpiece "The Doctor" first shown by the Petrolagar Laboratories at Chicago's Century of



Progress Exposition in 1933 has been presented by its owners to the new Rosenwald Museum of Science and Industry in Chicago. The exhibit has been on a tour of 50,000 miles during which it was viewed by over five million people in 18 principal cities throughout the country. The exhibit was designed to remind the public of the importance of the family physician. It required the full time of the late sculptor, John Paulding, and the artist, Rudolph Ingerle, and a large corps of assistants, and took nearly a year to complete. In its new location in the Rosenwald Museum, it will be seen by thousands of visitors annually.

The Civil Service Commission has announced examinations for nurse positions in the Indian Field Service (including Alaska), Department of the Interior. Examinations will cover three classes of positions: Public Health Nurse (\$2,000 a year); Graduate Nurse, general staff duty (\$1,800 a

year); and Nurse Technician, bacteriology and roentgenology combined (\$1,800 a year). There is especial need for persons who are able to meet the requirements for the positions of public health nurse and nurse technician. Persons interested may obtain a copy of the announcement from the United States Civil Service Commission, Washington, D. C. Applications must be filed by July 18, 1938.

The National Association of Better Business Bureaus has sponsored a series of fact booklets to aid consumers in their management of everyday money problems. Eight booklets already have had wide distribution, and they cover the subjects of facts you should know about borrowing, business, furs, jewelry, oil royalties, rayon, savings, and securities. More recent booklets concern facts you should know about advertising and about health cures. The pamphlets are available to consumers at a cost of three cents each from any branch of the Better Business Bureau. The booklet on "Health Cures" would be a valuable addition to your reception room literature.

At a meeting of the Johnson County Medical Society held June tenth, it was voted to cooperate with the Johnson county school superintendent in a program to have all children in the county of school and pre-school age vaccinated against smallpox and typhoid fever and immunized against diphtheria before the opening of the next fall school term. A survey conducted by the medical society has shown that only thirty per cent of these children already have received diphtheria immunization and less than twenty per cent are vaccinated against smallpox and typhoid fever. The medical society members will donate their services to those who are unable to pay. Speakers will be supplied by the medical society to talk before the various organizations in the county that are interested in the program.

MEETING OF LABORATORY WORKERS AND OTHERS INTERESTED IN SYPHILIS CONTROL WORK

The campaign against syphilis and the work of the Committee on Evaluation of Serodiagnostic Tests for Syphilis have progressed to a point where it is believed that material gains will be made by a thorough discussion on common ground in which all those interested in the control of syphilis through laboratory methods may participate. Plans are being developed for an assembly of laboratory workers from the entire country. All such workers, from private, hospital and public health laboratories, as well as physicians and health officers interested in the control of syphilis, are invited to attend. The proposed meeting will

be under the auspices of the Committee on Evaluation of Serodiagnostic Tests for Syphilis, with Surgeon General Thomas Parran as chairman, and is scheduled for October 21 and 22, 1938, at Hot Springs National Park, Arkansas.

Aims and purposes of the assembly will be to consider means and methods to improve and to make more generally available the serologic tests which are so important in syphilis control work. Tentative plans call for presentation of the program in four sections. The first section will consider the need for adherence to conventional technic in the routine performance of reliable serodiagnostic tests; the second section will discuss the need for training of laboratory personnel; the third section will discuss the prosecution of the studies to evaluate the performance of serologic tests within the States; and the fourth section will consider the desirability of licensing or approving for the performance of serodiagnostic tests for syphilis, laboratories within the States by the respective State departments of health. A separate committee will draft recommendations for each of the four sections for presentation to the assembly. Chairmen of the four sections will be Dr. Walter M. Simpson, Dayton, Ohio; Dr. Arthur H. Sanford, Rochester, Minnesota; Dr. F. E. Senear, Chicago, Illinois; and Dr. H. H. Hazen, Washington, D.C. General discussion will follow the presentation of each set of recommendations.

One feature of the meeting will be an actual demonstration of the performance of the Eagle, Hinton, Kahn, Kline, and Kolmer tests by the originators of these procedures.

It is expected that from this meeting there will come a crystallization of opinion with regard to the important problems which will be considered. Those interested in obtaining further information should write to the Surgeon General, U. S. Public Health Service, Washington, D.C.

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASES

Monthly Report, May 1938

Diseases	May 1938	April 1938	March 1938	May 1937	May 1936
Tuberculosis	204	228	111	223	181
Chicken Pox	120	311	389	304	132
Measles	2,158	5,745	4,245	2,677	85
Scarlet Fever	257	597	668	456	525
Smallpox	134	351	173	73	5
Typhoid Fever	15	29	3	4	6
Whooping Cough	52	128	94	352	109
Diphtheria	54	95	135	29	33
Influenza	8	48	74	55	123
Pneumonia	45	90	77	49	104
Mumps	59	131	88	199	314
Poliomyelitis	2	0	0	2	2
Meningitis	2	6	8	11	24
Undulant Fever	5	11	2	1	0
Hydrophobia	1	2	0	0	0
Tularemia	2	2	0	0	0

Indiana University News Notes

At the commencement exercises of Indiana University, Dr. F. C. Mann, who is a graduate of the University, was awarded his Alma Mater's most distinguished honor, the honorary doctor of laws degree.

Miss Ruth J. McNutt, former secretary to President W. L. Bryan at Indiana University, will succeed Allan Hendricks July 1 as librarian at the Indiana University School of Medicine at Indianapolis. In addition to her duties as medical school librarian, she will serve also as library co-ordinator for the four I.U. libraries at Indianapolis which are located at the medical and dental schools, in the social service department, and at the Extension Center. Miss McNutt resigned her position as secretary to the President November 1 on account of ill health. Miss McNutt went to Florida for a time and then returned to Indianapolis to complete her recuperation.

Dr. G. D. Timmons, secretary of the Indiana University School of Dentistry, has been named acting dean of the school. Dr. Timmons will serve as acting dean during the period in which the President and trustees of Indiana University are making an exhaustive investigation of men available for the deanship in the state and elsewhere, President H. B. Wells explained.

Dr. Timmons was appointed assistant to the dean last January and has had executive charge of the school during the second semester of this year. His appointment as acting dean follows the death of Dean Frederick R. Henshaw last month. Dr. Timmons has been secretary of the dental faculty since 1931 and a member of the faculty since 1925, at which time he was appointed clinical instructor and lecturer on materia medica and therapeutics.

The newly appointed acting dean has been active in national and state dental circles. He has served for the past six years as secretary of the American Association of Dental Schools, an organization composed of all 44 dental training institutions in the United States and Canada.

Photographs of the Indiana University Medical Center in Indianapolis, and articles by faculty members of the state university medical school are featured in the current issue of the *Phi Chi Quarterly*, official publication of the Phi Chi national medical fraternity. The entire first section of the new periodical is devoted to medical training on the Bloomington and Indianapolis campuses.

The editorial committee in charge of the Indiana section of the *Quarterly* was headed by Dr. Ross Rissler. Other members of the editorial staff were Harold Laws, Milan; Ralph Wilmore, Winchester, and James Gosman, Jasper.

Eighty-six students received the doctor of medicine degree from Indiana University Monday evening, June 13, at the 109th annual commencement exercises of I.U. The commencement address was given by Dr. Frank Charles Mann, director of the Division of Experimental Surgery and Pathology of the Mayo Clinic and also a member of the staff of the Mayo Foundation of the University of Minnesota.

DOCTORS OF MEDICINE

The following were awarded the Doctor of Medicine degree by Indiana University: Arthur Adams, West Lafayette; David Adler, Brooklyn, N. Y.; Henry Amstutz, Indianapolis; Doddridge Andrews, Clermont; Joseph Aronoff, Youngstown, Ohio; Richard Austin, Bedford; George Balsbaugh, North Manchester; Thomas Bauer, Lafayette; Leonard Blickenstaff, LaFontaine; Lester Bowles, Indianapolis; Edgar Bridwell, Evansville; Clarence Bunge, Indianapolis; George Byfield, Indianapolis; Leon Chandler, Rosedale; Paul Connell, Indianapolis; Morris Davidson, Elkhart; George Davis, Rushville; James Dietrich, Bloomington; Jack Dorman, Indianapolis; Jack Eisaman, Churubusco; Richard Emme, Harlan; James Feffer, Brooklyn, N. Y.; Robert Ferguson, Indianapolis; Burnett Forman, Indianapolis; William Garner, Indianapolis; Thomas Gill, Jr., Michigan City; John Glackman, Rockport; Lloyd Goad, Gary; James Gosman, Jasper; Alex Govorchin, Hammond; Elwood Hammond, French Lick; John Hancock, Indianapolis; Thurston Harrison, Indianapolis; Karl Helm, Washington; Robert Johnson, Bloomington; Nelson Kauffman, Indianapolis; Bruce Kendall, Indianapolis; Byron Kilgore, Jr., Indianapolis; John Kimmich, Indianapolis; Donald Ladig, Fort Wayne; Edward Lidikay, Ladoga; Phil Loveless, Winona Lake; William Lybrook, Galveston; Charles McCormick, Indianapolis; Boyd Mahuron, Salem; Arnold Maloney, Indianapolis; Samuel Manalan, Gary; Karl Mast, Angola; William Miller, Valparaiso; William Montgomery, Plymouth; Woodrow Murphy, Indianapolis; Rudolf Myers, Bloomington; Richard Nay, Muncie; Kenneth Neumann, Lafayette; Wanda Olczak, South Bend; Samuel Oliver, Indianapolis; Milton Ort, South Bend; Jed Pearson, Jr., Indianapolis; Gustavus Peters, Frankfort; Joseph Quigley, Jr., Indianapolis; George Rader, Bloomington; Roger Reed, Anderson; Norman Richard, Fort Wayne; Joseph Riley, Chrisney; Ross Rissler, Indianapolis; Howard Romack, Greenfield; William Rossman, Cairo, Ill.; James Scales, Lynnville; William Schnute, Evansville; Richard Schug, Decatur; Lawton Shank, Angola; Francis Sheehan, Indianapolis; Thomas S. Shields, Brownstown; Ben

Sieenthal, Bloomington; Crystal Slick, Hollansburg, Ohio; Birna Smith, Connersville; Edward Smith, Petersburg; Stewart Smith, Indianapolis; Robert Speas, Whiteland; Benjamin Speheger, Bluffton; Richard Stauffer, Fort Wayne; Victor Teixler, Indiana Harbor; Morris Thomas, Muncie; David Wiener, Newark, N. J.; John Winebrenner, Muncie; Roscoe Yegerlehner, Clay City.

GRADUATE NURSES

The following were awarded the Graduate Nurse degree: Angela Brinker, Richmond; Catherine Collins, Madison; Anah Louise Corbin, Bedford; Virginia Lee Curry, Bloomington; Mary Jane Dunfee, South Bend; Virginia Dunn, Greenwood; Dora Fox, Seymour; Lorene Free, Odon; Edith Mae Garrison, Mulberry; Alice Handy, Franklin; Sarah Harting, Elwood; Adelma Mooth, Chicago, Ill.; Helen Pigg, Indianapolis; Virginia Porter, Greencastle; Marian Roberts, Wanamaker; Mary Strader, Richmond; Thelma Strine, Elkhart; Lillian Thompson, Bloomington; Betty Van Sandt, Carbon.

DOCTOR OF DENTAL SURGERY

The degree, Doctor of Dental Surgery, was awarded to the following 41 people: Horace Abdon, Indianapolis; Abraham Alpert, Jersey City, N. J.; Frank Bethell, Petersburg; James Blythe, Evansville; Bridane Brant, Fort Scott, Kan.; Ernest Brown, Loogootee; James Carnes, French Lick; Samuel Daubenheyer, Holton; Horace Farmer, Terre Haute; George Fisher, Boonville; William Franklin, Fort Wayne; James Garner, Anderson; Richard Griffin, Indianapolis; William Hall, Jr., Michigan City; Frederick Heidenreich, Freelandville; Morris Himelstein, Fort Wayne; George Hoffman, Rushville; William Hoop, Shelbyville; Paul King, Indianapolis; Chester Kowals, South Bend; Leo Leon, Los Angeles, Calif.; William McClelland, Indianapolis; John McCullough, Indianapolis; Raymond Madden, Terre Haute; William Maury, Jr., Wheeling, West Va.; William Maxwell, Mentone; Edward Pease, Franklin; Arthur Pitzele, East Chicago; Roy Pownall, Plymouth; George Riester, Indianapolis; Antonio Rosat, Porto Alegre, Brazil, S. A.; Louis Rubin, Newark, N. J.; Forrest Saunders, Cincinnati, Ohio; Edward Scanlon, Indianapolis; John Scudder, Edwardsport; Lewis Sheek, Greenwood; Thomas Sheffield, Valparaiso; Kenneth Siegesmund, Hobart; John Steele, Oakland City; Howard Watson, Indianapolis; Charles Zalac, Indianapolis.

B.S. IN MEDICINE

The degree, Bachelor of Science in Medicine, was granted the following 68 students: Harry Anderson, Indianapolis; Edwin Bailey, Linton; Earl Bayer, Rolling Prairie; Ernest Beaver, Jr., Rensselaer; Jene Bennett, Plymouth; Clarence Bunge, Indianapolis; Basil Byrne, Georgetown, Paul Clouse, Evansville; Dorothy Darling, Gary; George Davis, Rushville; Paul Dintaman, Richmond; Jack Dorman, Indianapolis; Richard Dukes, Dugger; Basil Dulin, Bedford; Edwin Eaton, Indianapolis;

James Fant, Indianapolis; Ray Firestein, South Bend; Meredith Flanigan, Milltown; John Flick, Indianapolis; John Glackman, Rockport; Alex Govorchin, Hammond; Antha Hamilton, Wirt; Murray Harden, Covington; Lester Hardy, Lexington; Daniel Hare, Evansville; John Heubi, Jeffersonville; Archibald Hickman, Jr., Hammond; Eldore Hoetzer, Fort Wayne; Sterling Hoffmann, Fort Wayne; Irwin Hostetter, Roachdale; Marietta Houston, Indianapolis; Joe Humphreys, Cloverdale; George Jewell, Kokomo; Robert Kabel, Winchester; Julien Kennedy, Indianapolis; John Kimmich, Indianapolis; Leon Kresler, Rensselaer; Elbert Laws, Milan; William Lybrook, Galveston; James McIntyre, Indianapolis; Samuel Manalan, Gary; Edward Martin, Evansville; Roland Miller, Plymouth; Dwain Mings, Kokomo; Joseph Mullin, Rockfield; Leo Nonte, Loogootee; Jay Overmeyer, Winchester; Walter Pelczar, Hobart; Norman Richard, Fort Wayne; Ross Rissler, Indianapolis; William Rossman, Cairo, Ill.; John Russell, Terre Haute; Charles Sage, Brownstown; Louis Sandock, South Bend; John Scherschel, Bedford; James Schornick, Wabash; Frederick Simmons, Goshen; Benjamin Speheger, Bluffton; Carl Spath, Jr., Indianapolis; John Stepleton, Vevay; Willard Taylor, Indianapolis; Paul Thompson, Indianapolis; Walter Twineham, Indianapolis; William Van Ness, Summitville; James Ware, Huntington; David Wiener, Newark, N. J.; William Wissman, Columbus; William Yocum, Coal City.

A.M.A. ACCEPTED PRODUCTS

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Calco Chemical Co., Inc.

Mandelic Acid-Calco

Cheplin Biological Laboratories

Cheplin's Epinephrine Hydrochloride Solution, 1:1000, 10 cc.

Cheplin's Epinephrine Hydrochloride Solution, 1:1000, 30 cc.

Lederle Laboratories

Viosterol (A. R. P. I. Process) in Oil

Eli Lilly & Co.

Ampoules Metycaine 10 per cent for Spinal Anesthesia

Ampoules Metycaine 20 per cent for Infiltration and Regional Anesthesia

Wm. S. Merrell Co.

Ampoules Solution Dextrose 50 per cent, 100 cc.

Parke, Davis & Co.

Cevitamic Acid—P. D. & Co.

Tablets Cevitamic Acid—P. D. & Co., 25 mg.

Schiffelin & Co.

Sulfanilamide Tablets—Schiffelin, 5 grains

S. M. A. Corporation

3:Pyridine Carboxylic Acid (Nicotinic Acid)—SMACO

3:Pyridine Carboxylic Amide (Nicotine Acid Amide)—SMACO

The following product has been accepted for inclusion in the List of Articles and Brands Accepted by the Council But Not Described in N. N. R. (New and Nonofficial Remedies, 1938, p. 508):

Armour and Co.

Thyroid—Armour

Societies— Institutions

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

May 8, 1938

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Minutes of the meeting of April 3, 1938, approved upon the motion of Dr. Baker, seconded by Dr. McCaskey.

The monthly statements of Receipts and Expenditures for April for the Association committees and THE JOURNAL, which follow, were approved.

Report of the Budget for April for the Association committees and THE JOURNAL follow:

Membership Report

Number of members on May 6, 1938--	2,883
Number of members on May 6, 1937--	2,818
Gain over last year-----	65
Number of members Dec. 31, 1937----	2,982

1938 Annual Session at Indianapolis

Commercial exhibit. 36 spaces sold; 6 to be sold.

Scientific exhibit. Dr. Culbertson and Dr. Banks are to be consulted in regard to the placement of this exhibit.

Banquet speaker. The Committee selected Dr. George Vincent, former president of the Rockefeller Foundation, as the banquet speaker and instructed the secretary to send a formal invitation to Dr. Vincent.

Postgraduate

Arrangements completed for annual course to be held in Indianapolis May 23 to May 27.

Southern Indiana postgraduate course suggested for September 7 and 8 at French Lick with nationally known speakers upon physical therapy, maternal and child health, with special emphasis upon crippling diseases. These dates were selected as a special committee, composed of ten of the leading physicians in the field of physical therapy, is to be at French Lick on these dates and the Bureau of Maternal and Child Welfare of the State Board of Health and the Crippled Children's Bureau have offered to cooperate with the State Association in supplying speakers for a two-day post-graduate program for southern Indiana at that time. This plan was approved by the Executive Committee.

The "Dr. Quiz" column started in the May JOURNAL received favorable comment from the Committee.

Plan for obstetrical education. Dr. Howard B. Mettel, director of the Bureau of Maternal and Child Health, appeared before the Committee and presented a plan for obstetrical education whereby an opportunity is to be given to those doing obstetrics in the state to receive intensive postgraduate instruction at the Indiana University School of Medicine at Indianapolis through the following method: Two or three physicians at a time are to be selected to come to Indianapolis for two weeks to study the latest techniques in child and maternal care. When the first course is finished, these men will return to their homes and other men will be invited to come to Indianapolis for the same course. It was felt that before formal approval of this plan could be given by the Executive Committee this matter should be presented to the Executive Committee by the Liaison Committee.

Legislative, Legal and Social Security Matters**National:**

H. R. 4650 to license osteopathy in the District of Columbia was brought to the attention of the Committee. The Committee decided that no formal action would be taken in regard to this until word is received from the American Medical Association.

Local:

State industrial insurance. Dr. J. E. P. Holland of Bloomington appeared before the Committee as a representative of the physicians of Monroe county and discussed the matter with the Committee. In short, the position of the State Association is that it does not favor the State creating a bureaucracy to take over this insurance but it does hope that the insurance companies will liberalize their present policy so that more physicians will be able to do this work.

Sickness Insurance and Socialized Medicine

Report made upon the meeting of the Professional Men's Forum on April 27 at which the subject of socialized medicine was discussed. The Committee felt that it was significant that attorneys, educators and several of the merchants advocated health insurance in one form or another.

Letter from LaPorte County in regard to the contract practice of a physician brought to the attention of the Committee. According to the letter the physician has contracted with a company to supply its 1,700 employees with complete medical services for \$225.00 a month. Employees who do not use the company physician are threatened with the loss of their jobs, according to the letter. This, of course, is illegal.

Report on Conference of State and Provincial Health Authorities of North America made to the Committee. Under the title, "Symposium on Recent Extension and the Future of Medical and Public Health Services," speakers from the Surgeon General's office and from Canada upheld the right of the Government to extend health services, while speakers from the American Medical Association asked that the Government limit its services to public health education and public health matters and not enter the field of treating the individual.

Clippings from various newspapers stating the viewpoint of the press in regard to the G. H. A. movement in Washington, criticisms of Dr. James H. Means of the American College of Physicians, and the report of the special committee of the New York State Medical Society which advocates a public health program "calling on the government to provide medical care for those too poor to pay for it, regardless of whether they are on relief, and to develop a system of subsidies intended to keep persons in the lower middle class from falling into indigence through inability to meet the costs of medical service" brought to the attention of the Committee.

Farm Security Administration

Reports from Iowa and Missouri and letter from Dr. Leland in regard to this matter brought to the attention of the Committee. The secretary was instructed to have copies of Dr. Leland's letter made and sent to the Committee as well as copies of the Iowa and Missouri program.

Reports that appeared in the American Medical Association Journal concerning Alabama, Wisconsin and North Dakota farm security plans in those states also were brought to the attention of the Committee.

Dr. Austin was assigned by the Committee to study the old agreement along with the various reports from these societies and Dr. Leland's letter and report back recommendations for any new agreement with the Farm Security Administration at the next meeting of the Executive Committee.

State Board of Medical Registration and Examination

Informal report made upon the progress of the irregular practice survey. Many county societies have reported upon cultists and irregular practitioners in their dis-

tricts. This material is to be assembled and analyzed under the direction of the State Board of Medical Registration and Examination.

Report made that Dr. James Hicks of Huntington, a member in good standing of the Indiana State Medical Association, has been appointed to fill the vacancy left by the death of Dr. L. C. Sammons on the State Board of Medical Registration and Examination.

Report made to the Committee that the Indiana State Board of Medical Registration and Examination had lost its case against George L. Cole, a chiropractor whom the Board had attempted to enjoin from practicing medicine without a license. The case against Cole was tried by Judge Edward E. Pruitt in the Carroll County circuit court. The State is to take an appeal in this case.

Albert Stump expressed the opinion that the Iowa Supreme Court decision on the medical practice act of Iowa would have a direct bearing upon the situation here in Indiana. He also said, "In my judgment the test as to what one with a limited license may do is to be found in the subjects he studied in the school from which he graduated. In my opinion he cannot enlarge the scope of his practice beyond the methods taught while he was a student, if he has only a limited license. Such is not the case with one who practices under a regular license as a physician."

Organization Matters

Report made that employment of a full-time secretary is being considered by the St. Joseph, Lake and Marion County Medical Societies.

The Committee discussed the situation whereby in several counties of the state physicians are officers of local societies but they are not members of the State Association. An attempt has been made by the headquarters office to clear up this anomalous situation.

Resignation of Dr. N. K. Forster, councilor of the Tenth District, brought to the attention of the Committee. As yet no official word has been received as to Dr. Forster's successor.

Venereal Disease Control

Report made to the Committee that the Committee on Syphilis Control is to meet at the headquarters office on Monday, May 23, the first day of the Graduate Education meeting.

Dr. Baker reported upon the hearing before the House Committee in Washington in regard to syphilis control legislation.

Dr. Verne K. Harvey attended the meeting of the Executive Committee and discussed the complaint made by two Wabash College students that as food handlers they had received a certificate stating that they were free from incurable disease by doing no more than answering a few superficial questions asked by a physician who signed their certificate and charged them each 50c. Dr. Harvey asked that the Committee think this matter over and make suggestions as to what might be done about such a situation.

Legality of osteopaths making blood tests. This question has been presented to the attorney general and it has been decided that osteopaths have the right to make blood tests but they have no right to administer treatment for syphilis.

Medical Care for All the People Survey

Twenty county medical societies of the state have said they would cooperate.

Report made that some county societies are not favorable to the project and do not desire to make the survey. Opinion has been expressed by some doctors that this survey will be a basis for the movement to bring on socialized medicine.

Dr. Baker reported that in the talks made by him and the secretary of the State Association at the various district meetings the survey has been stressed and the various county societies have been asked to cooperate.

Report made that since the last meeting of the Executive Committee the Indianapolis Medical Society has set aside \$500 to conduct the survey. The Committee approved giving space at the State Association headquarters office to the Indianapolis Medical Society to be used by a girl employed by the local society to do this survey work.

Letter received from the American Medical Association stating that it would be proper and suggesting that each state medical society contact the governor of the state and tell him of the survey and request the cooperation of the state officials in conducting this survey.

It was reported that a contact already had been made with the heads of the State Welfare Department in regard to this survey and that these department officials had expressed their desire to cooperate in conducting the survey.

The State Dental Association has been asked to cooperate in making the survey and the matter will be discussed officially by that organization at its state meeting this month.

State Board of Health

Dr. Verne Harvey, secretary of the State Board of Health, was present at the meeting and discussed two matters, (a) a change in the present procedure concerning the medical examination of food handlers, and (b) the State supplying immunization materials to physicians. Dr. Harvey said that the grading of restaurants had been going on for some twenty to thirty years in this state. He stated that the State Board of Health had always allowed food handlers to choose their own physicians to make these examinations but he urged that all physicians make a real and not a mere paper examination of the food handlers. He stated that the New York Board of Health no longer examined food handlers but stressed sanitation in restaurant equipment, etc.

Dr. Harvey spoke of the activities of the American Legion in the immunization campaign and the fact that Legion organizers are making certain demands upon the State Board of Health for immunization materials. It was suggested that arrangements be made for a meeting of the representatives of the Legion, the State Board of Health, and the State Medical Association so that this question might be discussed. In the meantime Dr. Harvey requested that the Committee think over the matter and perhaps make some recommendations in regard to whether or not the State should supply immunization materials free of charge to doctors.

A. M. A. Meeting at San Francisco

Indiana's preventive medicine program.

Diagram of Indiana's preventive medicine display approved by the Committee and budget allowed for Mr. J. F. Glone to make the trip to San Francisco to set up the exhibit, in accordance with his estimate of what the cost would be.

Report made that a resolution was to be prepared and presented by the Indiana delegates asking the A.M.A. to set up a committee to study methods of promoting preventive medicine throughout the country under Dr. Bauer of the A.M.A. and his Bureau of Health and Public Instruction.

Letters received from Dr. Thomas Parran and TIME expressing interest in the Indiana program and the proposed display at San Francisco.

Invitations for the 1939 meeting received from Philadelphia, Cleveland and St. Louis, and for 1940 from New York.

Cancer Campaign

Report made that the cancer campaign work had been completed at the headquarters office.

Group Hospitalization

Report made that the Indiana Travelers Assurance Company is about to start writing group hospital insur-

ance at Evansville, Indiana. Mr. Don Trone, secretary of the company, has attempted in every way possible, so he reports in a letter to the Executive Committee, to follow the points set out by the American Medical Association in regard to this insurance.

Inter-Professional Health Conference

Upon the motion of Dr. Austin, seconded by Dr. McCaskey, the Executive Committee approved the \$10 expenditure to be made to this conference which is being formed under the auspices of Purdue University.

New Secretary of Indiana Pharmaceutical Association

Report made that Mr. J. L. Weinland, 806 Test Building, Indianapolis, has been made secretary of the Indiana Pharmaceutical Association.

ELEVENTH DISTRICT MEDICAL SOCIETY

At the fifty-ninth semi-annual meeting of the Eleventh Indiana Councilor District Medical Association, held in Logansport, May eighteenth, Dr. H. M. Rhorer of Kokomo was elected president and Dr. O. G. Brubaker of North Manchester was re-elected secretary-treasurer.

The next meeting will be held in October 1938 at Delphi.

O. G. BRUBAKER, M.D., Secretary.

SULLIVAN COUNTY MEDICAL SOCIETY

On the evening of June eighth, the Sullivan County Medical Society and invited guests held their June meeting in the new clinical building of Doctors G. D. Scott, I. H. Scott, and J. B. Maple in Sullivan. This was in the nature of a housewarming party.

A unique non-medical program was presented which consisted of a showing of the hobbies of some of the members. Professor H. W. Branstetter gave a talk on Indian relics and presented a large display of them. Dr. H. S. Leach, who has as his hobbies astronomy and aviation, gave a talk on aviation. Dr. H. C. O'Dell gave a very instructive address on stamp collecting as a hobby, and he had on display his unusually fine collection. Dr. H. M. Baker, president of the State Association, confessed to a growing hobby of collecting old medical works, and Tom Hendricks gave as his pet insanity inland sailboating. In addition, Dr. W. N. Thompson had on display a number of very interesting old time medical instruments, saddle bags, and books. Dr. Maple also had on exhibition a large number of medical books printed from 1760 to 1830, which had belonged to the early physicians in Sullivan County.

Following the meeting, a buffet luncheon was served and a social session ran into the small morning hours. Some forty men were in attendance to help their hosts dedicate their splendid new medical building.

NEW OFFICERS FOR FOURTH DISTRICT SOCIETY

At the meeting of the Fourth District Medical Society held at the Madison Country Club, May nineteenth, the following officers were elected:

President, A. M. Kirkpatrick, Columbus.

Vice-president, Harold Graessle, Seymour.

Secretary, Byron Zaring, Columbus.

Councilor, M. T. McKain, Columbus.

The 1939 meeting will be held in Columbus.

LOCAL SOCIETY REPORTS

ADAMS COUNTY MEDICAL SOCIETY members held a meeting at the Elks Home in Decatur, May twentieth, with Dr. E. L. Cartwright, of Fort Wayne, as guest speaker. Dr. Cartwright's subject was "Diseases of the Rectum and Anus".

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CLAY COUNTY MEDICAL SOCIETY members met June seventh at "Woody's" near Brazil for a dinner meeting.

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DAVIESS-MARTIN COUNTY MEDICAL SOCIETY held a meeting at Washington, May 31. Dr. William N. Wishard, Jr., of Indianapolis, talked on "Prostatic Obstruction" and illustrated his talk with slides. Attendance numbered nineteen.

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DEARBORN-OHIO COUNTY MEDICAL SOCIETY members met at Rising Sun Hotel, in Rising Sun, May twentieth. This was a dinner meeting with Dr. E. Ross of Cincinnati, Ohio, as principal speaker. Dr. Ross's subject was "Treatment of the Common Cold." Attendance numbered fifteen.

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DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY met at Muncie, May seventeenth, with Dr. Jewett V. Reed, of Indianapolis, as principal speaker. Dr. Reed's subject was "Highway Accidents and Proper Care of Injured by Physician who First Sees Accident Patients." Attendance numbered fifty.

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DUBOIS COUNTY MEDICAL SOCIETY met at Jasper, June first, with nine in attendance, for a business meeting. The next meeting of the society will be held just prior to the state meeting.

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ELKHART COUNTY MEDICAL SOCIETY members heard Dr. Robert Moore, of Indianapolis, at their May eighteenth meeting in Elkhart.

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FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY members held a meeting at Magnesia Springs, Brookville, June fourteenth. Dr. John Fisher, of Cincinnati, talked on "Treatment of Diseases of the Genito-Urinary Tract." Fourteen members attended.

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FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met at the Chamber of Commerce Building, Fort Wayne, May seventeenth. Dr. George L. Waldbott, of Detroit, Michigan, spoke on "Allergy." Attendance numbered fifty-two.

The May twenty-fourth meeting of the Fort Wayne Medical Society was the annual meeting, and officers were elected as follows:

President, H. V. Blosser
Vice-president, L. W. Elston
Secretary, R. L. Hane
Treasurer, E. L. Cartwright

* * *

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY held a meeting in Perrysville, May fifth. Dr. D. R. Ulmer, of Terre Haute, presented a paper on "Fracture Program of U. S. Surgeons." Slides were used to illustrate the paper. Attendance numbered forty-four.

At the June second meeting of this society, held in the new court house at Covington, Dr. William N. Wishard, Jr., of Indianapolis, talked on "Some Recent Advances in Urology." Attendance numbered fifty-eight. A catfish dinner was served, and many physicians from western Indiana and eastern Illinois attended.

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY members held a round table discussion on "Nonsurgical Diseases of the Kidneys in Children" at the May seventeenth meeting held in the Indianapolis Athletic Club. Speakers included Drs. Louis Segar, Henry O. Mertz, Matthew Winters, Russell Hippensteel, Frank Forry, and Lyman Meiks.

As one of the features of the annual spring frolic of the Indianapolis society, a play was presented. The meeting was held at the Indianapolis Athletic Club, June first.

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JACKSON COUNTY MEDICAL SOCIETY held its regular monthly meeting June second, and adopted resolutions for a plan to enlarge the Schneck Memorial hospital at Seymour.

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JASPER-NEWTON COUNTY MEDICAL SOCIETY members were guests of Dr. Harry E. English at Rensselaer, May twenty-sixth. Dr. Hugh A. Kuhn, of Hammond, was the principal speaker.

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LAKE COUNTY MEDICAL SOCIETY members met at Mercy Hospital in Gary, June ninth. Speaker was Dr. Max Cutler, of Chicago, whose subject was "Malignancies of the Breast." This was the last meeting of the society until the annual picnic meeting in August.

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LAPORTE COUNTY MEDICAL SOCIETY members met at Wanatah, May nineteenth, for a dinner meeting. Dr. John W. Ferrin, of Chicago, was the principal speaker, his subject being "Urological Conditions of Interest to the General Practitioner." Attendance numbered thirty. Moving pictures and slides were presented with the talk.

The secretary of the society has noted that this was the first attempt at meeting in one of the smaller communities, and the attendance was the largest that the society has had this year.

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MARSHALL COUNTY MEDICAL SOCIETY held its annual dinner meeting June fifteenth at the country club, Plymouth. Dr. Charles P. Emerson, of Indianapolis, was the principal speaker, his subject being "Medical Diseases of Importance in the Future." Afternoon entertainment included golf, swimming, fishing, and speedboating.

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MIAMI COUNTY MEDICAL SOCIETY members met April twenty-ninth at the hospital in Peru, with fourteen in attendance. Dr. A. S. Newell, of Converse, presented a paper on "As Your County Coroner Sees You."

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MONTGOMERY COUNTY MEDICAL SOCIETY met at Culver Hospital, Crawfordsville, April twenty-first, for a dinner meeting. Dr. Larue Carter, of Indianapolis, spoke on "Relation of Mental Conditions to Visual Symptoms." Dr. Paul Magnuson, of Chicago, talked on "Treatment of Hip Fractures." Attendance numbered forty.

At the May nineteenth meeting of the Montgomery County Society held in the Culver Hospital at Crawfordsville, Dr. George S. Bond, of Indianapolis, spoke on "Treatment of Cardiac Arrhythmia." Attendance numbered twenty-nine.

At the June sixteenth meeting of the Montgomery County Medical Society at Culver Hospital, Crawfordsville, Dr. O. W. Greer, of Indianapolis, talked on "The Care of Crippled Children." Attendance numbered fourteen.

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NORTHEASTERN INDIANA ACADEMY OF MEDICINE met at the Kendall Hotel in Kendallville, May twenty-sixth. This was a dinner meeting, following which Dr. Willis S. Gibson, of Chicago, talked on "Heart Conditions in Children," and Dr. E. M. Van Buskirk, president-elect of the Indiana State Medical Association, gave a short talk.

PARKE-VERMILLION COUNTY MEDICAL SOCIETY met at the Vermillion County Hospital, Clinton, May eighteenth, with Dr. H. J. Hawk, of Indianapolis, as principal speaker. Dr. Hawk's subject was "Puerperal Infection and Prenatal Care." Attendance numbered fourteen.

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PORTER COUNTY MEDICAL SOCIETY members met at the Lembke Hotel in Valparaiso, May twenty-fourth. Dr. Milo Miller, of South Bend, talked on "Emergencies in Pediatric Practice." A moving picture on "The Control of Pertussis" was shown.

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RANDOLPH COUNTY MEDICAL SOCIETY members met at the Union City Country Club, May eleventh, for a social meeting. An afternoon of golf was followed by a steak dinner and moving pictures. Sixteen were in attendance.

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SHELBY COUNTY MEDICAL SOCIETY held a meeting at Shelbyville, May eleventh. Dr. Ross Ottinger, of Indianapolis, was principal speaker, his subject being "The Glands of Internal Secretion."

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ST. JOSEPH COUNTY MEDICAL SOCIETY members met at the Jefferson Plaza in South Bend, May seventeenth. Speakers were Dr. W. H. Baker, Dr. R. B. Acker, Dr. M. D. Wygant, and Dr. L. Erickson who presented a symposium on fractures. Subjects included were "Fracture of Metacarpals and Phalanges," "Fractures of the Wrist," "Fractures of the Shaft," and "Fractures in Children."

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY met at Liberty, in the public library, June ninth, to hear Dr. Franklin Johnston, of Ann Arbor, talk on "Electrocardiographic Diagnosis of Coronary Occlusion." Attendance numbered thirty-three.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

It lies not East or West
But like a scroll unfurled,
Where the hand of God hath hung it,
Down the middle of the world.

To San Francisco, we sent the following delegates: Mrs. Herman M. Baker, Evansville; Mrs. George Dillinger, French Lick; Mrs. Russell Hippensteel, and Mrs. Harry Foreman, Indianapolis. In the August JOURNAL, they will tell us of the recent activities of the auxiliaries of the nation.

ORANGE COUNTY AUXILIARY held a joint dinner meeting with the medical society, April 20th, at West Baden Springs Hotel. State officers attending were Mrs. Fred Wishard, Mrs. John T. Wheeler, Mrs. William Tinney, and Mrs. Charles Voyles.

MARION COUNTY AUXILIARY gave a May Day breakfast, May 2, at the Marott Hotel. The legislative committee, Mrs. John T. Wheeler, Mrs. Lester A. Smith, and Mrs. Leonard A. Ensminger, had charge of the program. Dr. Norman M. Beatty gave an address entitled "Why Have a Legislative Committee?"

The following officers were elected:

President, Mrs. George W. Bowman; president-elect, Mrs. Harry Van Osdol; first vice-president, Mrs. Byron Rust; second vice-president, Mrs. Verne K. Harvey; third vice-president, Mrs. Fred Gifford; recording secretary, Mrs. William M. Dugan; corresponding secretary, Mrs. Robert D. Howell; treasurer, Mrs. A. M. Hetherington; and publicity secretary, Mrs. Russell Spivey. The Marion County Auxiliary has 163 members.

Excerpts from an address delivered before the Woman's Auxiliary to the Illinois State Medical Society,

May 18, by Dr. Irvin Abell, president-elect of the American Medical Association, were as follows:

"I early became interested in the Women's Auxiliary, since Mrs. Abell was one of its early National Officers; I have watched with a great deal of admiration its development, not only in its membership, but in its activities. During the early years it fulfilled duties that were largely social in character, bringing together doctors, their wives and families; and in so doing it served a most useful function, particularly in the smaller communities. As the years have gone on the Auxiliaries in the various parts of the country have taken on other functions, many of which are extremely worth while. In Kentucky the Woman's Auxiliary has erected a granite monument to Jane Todd Crawford, upon whom Dr. McDowell operated in 1809, for the first time in the world removing an ovarian tumor. As a patient she had confidence and courage to undergo an operation that was known to be experimental and thus aided in an exploit, out of which has come the wonderful achievements in abdominal surgery of today. The shaft stands near the McDowell monument in McDowell Square in Danville, Kentucky. The Kentucky Auxiliary has also established a Doctor's Shop, in the replica of Ft. Harrod, the first Fort established in the State of Kentucky in 1774. The Auxiliary has collected mementoes of this early period, in the shape of old instruments, old books, saddle bags, and historical data of the early practitioner, filing same in the Doctor's Shop and making it a place of great interest.

"I note today the Benevolence Fund Project of your Auxiliary and think it a particularly fine, commendable undertaking. Another activity which I have observed is largely a cultural one, and yet one quite worth while, in that literary groups have been formed in some of the Auxiliaries which devote a certain time each month to the reading and review of books written by Doctors or written about doctors. Such books as 'The Citadel', 'Madam Curie', 'The Bonnie Briar Bush', 'Arrow-smith', 'Devils, Drugs and Doctors', form interesting and informative reading. This afternoon I wish to suggest to you another activity, one that has been taken up in Kentucky and is being taken up in other States, namely, the organization of study groups to be concerned with the dissemination of knowledge concerning the social and economical movements that are destined to have some effect upon the practice of medicine. One sees much propaganda in the lay press, in periodicals, and in magazines about the socialization of medicine. It can well be one of your duties to bring to the lay people, with whom you come in contact, the answer of the profession to the misleading statements which such propaganda contains. As the wives of doctors you are in a position to provide this information to your friends, clubs, Parent-Teacher Associations, Cancer Groups, and various welfare bodies with which you are affiliated."

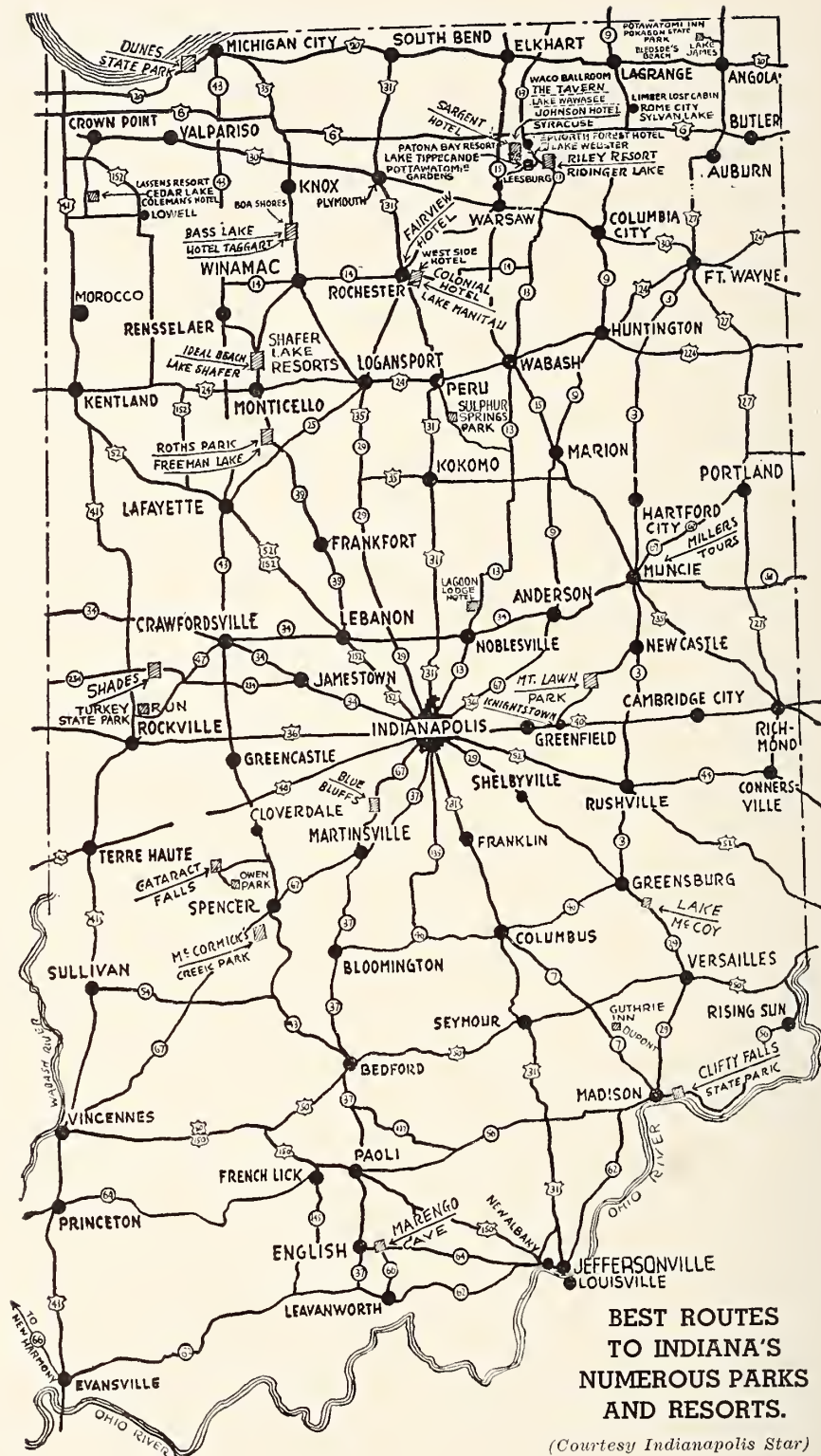
These excerpts were taken from a news letter, edited by the National Press Chairman.

The name *Hygieia* was taken from Grecian mythology, being the name of the mythological goddess of health. The name seems well-chosen. I wonder if folks generally know that *Hygieia* is the authorized medical publication from the American Medical Association, and that it is written to be easily understood by all laymen. Many auxiliaries are placing it in every high school and every rural school in their states. It is the authentic layman's textbook on health education. The future depends upon the well-informed youth of today. Let's give *Hygieia* a real chance to nurse back to normal those who have many wrong facts about health and healing. Mrs. S. G. Jump of Muncie is state chairman for *Hygieia*.

October not only brings "bright blue weather" but it brings our state medical meeting in Indianapolis. We hope that every doctor's wife will plan to come.

MRS. W. F. HUGHES,
Press and Publicity Chairman.

VACATION IN INDIANA



Books

BOOKS RECEIVED

THE LIFE OF CHEVALIER JACKSON. An autobiography. 229 pages plus 62 pages of illustrations. Cloth. Price \$3.50. The Macmillan Company, New York, 1938.

* * *

PLAY AND MENTAL HEALTH. Principles and Practice for Teachers. By John Eisele Davis, M.D., Veterans' Administration Facility, Perry Point, Md. Author of "Principles and Practices of Recreational Therapy for the Mentally Ill." 202 pages. Cloth. Price \$2.50. A. S. Barnes and Company, New York, 1938.

* * *

MEDICAL WRITING. THE TECHNIC AND THE ART. By Morris Fishbein, M.D., editor, *The Journal of the American Medical Association*, with the assistance of Jewel F. Whelan, assistant to the editor. 212 pages. Flexible binding.

* * *

MEDICAL STATE BOARD QUESTIONS AND ANSWERS. By R. Max Goepf, M.D., formerly professor of clinical medicine in the graduate school of medicine, University of Pennsylvania, etc. Seventh edition, revised. 644 pages. Cloth. \$5.50. W. B. Saunders Company, Philadelphia and London, 1938.

* * *

THE NEW INTERNATIONAL CLINICS. Volume II, New Series One (old 48th). Edited by George Morris Piersol, M.D., professor of medicine, graduate school of medicine, University of Pennsylvania, Philadelphia. 315 pages, illustrated. Cloth. J. B. Lippincott Company, Philadelphia, Montreal, and New York, 1938.

* * *

REVIEWS

A HISTORY OF WOMEN IN MEDICINE. From the Earliest Times to the Beginning of the Nineteenth Century. By Kate Campbell Hurd-Mead, M.D. 569 pages. Illustrated. Cloth. Price \$6.00. The Haddam Press, Haddam, Connecticut, 1938.

In the history of women in medicine we have a book written by Dr. Kate Campbell Hurd-Mead, which is an exhaustive study of the healing work of women from primitive time into the Middle Ages, and down to the eighteenth century. Naturally, the work of the women in the eighteenth century is something with which we are more familiar, and the latter chapters are more readable than the earlier chapters; however, the earlier chapters show an exhaustive study of history and, as far as we know, are perfectly accurate.

Women have always had the care of the sick, and nursing is no new phase of a woman's life, but to the large majority of people it will be more or less of a surprise to learn that, long before Christ, women held executive positions in the care of the sick, and in nursing homes, and in what were the early forerunners of our present-day hospitals. The life of the abbesses in the Middle Ages and the work they did, not only in caring for the sick but in the study of various conditions such as sterility and the care of infants, sounds very modern. Trotula is a name which is well known in all histories of medicine, but Heloise is more famous for her association with Abelard than for the fact that she was a leader in a medical school. It is not generally known that Heloise, 1101-1164, was probably the most learned woman doctor of France in the twelfth century. Hildegard, born in the year 1098,

was an abbess who wrote many medical works and was very prominent in medical teaching.

To any lover of history, this book will be intensely interesting. It has a wealth of detail which shows profound study. What it lacks in fluency, it certainly makes up in research. The author of this review looks forward to reading Dr. Hurd-Mead's next book, which deals with women in modern medicine.

MEDICAL WRITING. The Technic and The Art. Morris Fishbein, M.D., editor, *The Journal of the American Medical Association*; with the assistance of Jewel F. Whelan, assistant to the editor. 212 pages. Illustrated. Flexible binding. Press of the American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

The art of medical writing has in recent years come in for considerable discussion. Editors of medical journals frequently comment upon the need for a greater degree of standardization in the preparation of papers for publication, and several little books have been written upon the subject, many of which are very well done. Recently published is Dr. Morris Fishbein's book *Medical Writing* which is the last word on the subject. The two hundred pages of this book afford the answers to every problem that confronts those engaged in any department of medical publishing whether it be as editor or writer. Dr. Fishbein first discusses what he regards as an acceptable paper, explaining why many papers are denied publication. He makes it very clear that there is a marked difference in the preparation of a paper for presentation before a medical society and for publication. He quotes liberally from some of the papers he has received, some of which have contained material of great importance but which have been so poorly prepared that extensive editing is necessary.

"Style" in writing is exceptionally well discussed as is the "Subject and Material." Putting the paper together is given a well merited chapter, for writers often have worth while information but have it poorly connected. Spelling, of course, occupies much of the attention of the author of this book, for doctors notoriously are poor spellers and many editors find it a task to make required corrections.

The matter of bibliographical material is well discussed. Occasionally we have wondered if some of our writers make the many citations for the purpose of impressing the reader with the fact that they have made an exhaustive study of the subject. Illustrations and comment in regard to charts and tables occupies quite some space in the book, and to very good advantage.

Proof reading and manuscript revision are chapters that are well done and will afford material help to those engaged in that division of medical publishing.

The book is thoroughly complete, written in the best Fishbein style, and is commended to all who care to improve their medical writing.

NEW AND NONOFFICIAL REMEDIES, 1938. Containing descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1938. Cloth. Price, \$1.50. Pp. 592, LXVI. Chicago: American Medical Association, 1938.

In this book the Council on Pharmacy and Chemistry lists and describes the medicinal preparations that it

has found acceptable for general use by the medical profession. A glance at the list of the Council members and the long list of consultants appearing in the first part of the book gives ample warrant for the authority of the Council's selections.

New substances described in this volume are Sulfanilamide and Protamine Zinc Insulin, with the accepted brands. The proved value of these new additions to the physician's armamentarium bids fair to make the past year a milestone in therapeutic progress. The Council is to be congratulated on the promptness with which it evaluated these drugs and established standards for their adequate control. From the first the Council warned against using Sulfanilamide in untried combinations. The sad tragedy of the deaths from the rashly introduced Elixir of Sulfanilamide-Massengill starkly emphasizes the value of such a body as the Council to the medical profession and the pharmaceutical manufacturers as well as to the public. Of course this potential value cannot become effective as long as those concerned refuse to follow the Council in the use of new remedies.

Other noteworthy new drugs which appear in New and Nonofficial Remedies 1938 are Avertin with Amylene Hydrate, Vinethene, Pontocaine Hydrochloride, basal, general and local anesthetics respectively; Nov-atropine and Syntropan, synthetic mydriatics.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the "Bibliographical Index to Proprietary and Unofficial Articles Not Included in N. N. R." of much value. In this section (in the back of the book) are given references to published articles dealing with preparations that have not been accepted. These include references to the Reports of the Council, to Reports of the A. M. A. Chemical Laboratory and to articles that have appeared in *THE JOURNAL*.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY of the American Medical Association for 1937, with the Comments That Have Appeared in *THE JOURNAL*. Cloth. Price, \$1.00. Pp. 201. Chicago: American Medical Association.

This book is a great deal more than a mere record of the negative actions of the Council on Pharmacy and Chemistry. It gives in full the reasons for the Council's rejection of various preparations, but it also records results of the Council's investigations of new medicinal agents not yet out of the experimental stage, and frequently contains reports on general questions concerned with the advance of rational drug therapy. All three categories of reports are represented in the present volume.

This issue of the Reports is remarkable for the series of valuable status and preliminary reports published by the Council in the past year. These include the reports on Avertin with Amylene Hydrate (now accepted for New and Unofficial Remedies), Benzadrine Sulfate (the active constituent of the notorious "pep" pills but a promising drug when its limitations are recognized), Catgut Sutures (a survey of the sterility of the market supply), Evipal Soluble (a comprehensive review of the evidence for the usefulness and limitations of the drug), Histidine Hydrochloride (a study of the usefulness of the drug in peptic ulcer, to be considered in connection with the report rejecting Larostidin, a proprietary brand, for unwarranted and exaggerated claims), Mandelic Acid (an authoritative statement of the limitations of this drug which the Council has now accepted), and Vinethene (a careful study of the evidence for the drug, which the Council has accepted for one year as an anesthetic to be used in short procedures).

Other notable reports of outright rejection of products are those on Causalin (Causyth), an unsafe and dangerous preparation proposed for use in arthritis; Glutamic Acid Hydrochloride-Calco, proposed as a conveyor of hydrochloric acid, with unsubstantiated claims of clinical effectiveness; Larodon "Roche", proposed as a substitute for other well established analgesic and antipyretic drugs and marketed with exaggerated and unwarranted claims.

Two reports on Sulfanilamide appear, a nomenclature and status report together with reprints of *THE JOURNAL* editorials giving the warnings which, if obeyed, would have avoided the series of deaths which resulted from the marketing of the ill-fated Elixir of Sulfanilamide-Massengill.

At the end of this volume appears an eulogy of George Henry Simmons whose death deprived the Council on Pharmacy and Chemistry of its founder and American medicine of a worthy and faithful servant.

THE BIG HOUSE OF MYSTERY. By Patrick H. Weeks, M.D., physician for the Michigan City penitentiary. Cloth. Dorrance & Company, Inc., Drexel Building, Philadelphia, Pa., 1938.

Dr. Patrick H. Weeks, for eighteen years prison physician at Michigan City penitentiary, has written a most interesting volume, "The Big House of Mystery." Based on his large personal experience in dealing with the thousands of inmates who have passed under his observation over the years, Dr. Weeks has given us a first-hand, authoritative study in criminology. He recites his personal contacts with some of the noted convicts that have inhabited this prison, commenting on the probable cause of their being there.

But it is in the chapters concerning the criminal insane that Dr. Weeks has done his best writing. This subject, just at present, is a live one in Indiana because of the increasing demand that these inmates be quartered in a separate institution.

One of the chapters is devoted to a story of "The Last Mile," that walk taken by convicts to the electric chair. It is a most realistic bit of writing and affords much food for reflection to the student of crime.

To one interested in such subjects we commend Dr. Weeks' book as being thoroughly readable and authentic.

TEN RULES OF THE CANCER EXAMINATION

1. Examine the lips, tongue, cheek, tonsils and pharynx for persistent ulcerations; the larynx for hoarseness, and the lungs for persistent cough.
2. Examine the skin of the face, body and extremities for scaly bleeding warts, black moles and unhealed scars.
3. Examine every woman's breasts for lumps or bleeding nipple.
4. Examine the subcutaneous tissues for lumps of the arms, legs and body.
5. Investigate any symptoms of persistent indigestion or difficulty in swallowing. Palpate the abdomen.
6. Examine the lymph node system for enlargement of the nodes of the neck, groin, or arm pit.
7. Examine the uterus for enlargement, lacerations, bleeding, or new growths.
8. Examine the rectum and determine the cause of any bleeding or pain.
9. Examine the urine microscopically for the presence of blood.
10. Examine the bones, and take a radiograph of any bone which is the seat of a boring pain, worse at night.

DIAGNOSTIC PSALMS

The patient is my laboratory; I shall not want.
He maketh me to hearken to his complaints: he leadeth me beside his symptom complexities.

He restoreth my confidence: he leadeth me in the paths of therapy for his health's sake.

Yea, though I walk through the valley of the shadow of teeth, tonsils, and sinuses, I will fear no evil: for my patient is with me; his hope and his trust they comfort me.

He prepareth a table before me in the presence of his complications: he giveth sight to mine eyes; my interest runneth over.

Surely assurance and profit shall follow me all the days of my practice; and I will dwell in the laboratory of living processes forever.

C. W. Rutherford, M.D.

GOLFER'S PSALM

Golf is my hobby; I shall not want for recreation.
It maketh me to walk in green pastures; it leadeth me beside the still waters.

It restoreth my soul: when I count my score, it guideth me in the paths of righteousness, for the game's sake.

Yea, though I walk through the rough and the sand trap, I shall fear no evil, for my skill is with me; my mashie and my niblick, they comfort me.

A stymie is prepared for me in the sight of my enemies, and my throat is anointed with Scotch and soda; my cup, if I win it, runneth over.

Surely, good fortune and Lady Luck shall follow me all the days of my life, and I shall dwell in the club house forever.

Edgar F. Kiser, M.D.

ABSTRACT: UNDULANT FEVER: ITS TREATMENT WITH SULFANILAMIDE

Brucella melitensis, originally known as *Micrococcus melitensis*, is pleomorphic, its morphology in part determined by the culture medium or the preparation used for its study. Morphologically it is considered variously by several authors on bacteriology to be a coccus, a bacillus or a coccobacillus. On this basis, with the effect of the drug in question established against certain other pathogenic bacterial forms, ROBERT L. STERN and KEN W. BLAKE, Los Angeles (*Journal A. M. A.*, May 7, 1938), working independently, gave sulfanilamide in therapeutic doses to each of three private patients suffering from clinically and serologically established undulant fever. Highly satisfactory and prompt results with clinical cure followed. The maximal dosage according to present standards appears to be necessary.

UNDERGRADUATE INSTRUCTION IN PREVENTIVE MEDICINE

J. G. FITZGERALD, Toronto (*Journal A. M. A.*, April 23, 1938), presents the results of a survey undertaken to obtain information respecting the scope and content of undergraduate teaching of preventive medicine, public health and hygiene in any or all departments of medical schools in the United States and Canada and in twenty-four European countries. Sixty-four universities in Europe and twenty-one in the United States and Canada were visited. The Council on Medical Education and Hospitals of the American Medical Association with the cooperation of the Association of American Medical Colleges and the Federation of State Medical Boards of the United States give the information that they procured from a survey of medical schools in the United States and Canada in 1934-1935 and 1935-1936. Of

(Continued on page xxiv)

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FOR SALE: One Spencer Microscope, almost new. Will consider part payment and balance on terms. Address Dr. C. W. Roller, 1437 Shelby Street, Indianapolis. Telephone, Drexel 0675.

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ABSTRACTS

(Continued from page xxi)

seventy-one medical schools in the United States reported on by Dr. Weiskotten during 1934-1935 and 1935-1936 there are only eighteen that have full time university departments of preventive medicine, public health and hygiene. In Canada there are nine university medical faculties, and in five of these there are whole time departments. In twenty-five additional medical schools in the United States preventive medicine, public health and hygiene are included in or combined with bacteriology. In one Canadian university this is also true. The evolution of the teaching of hygiene, the effectiveness of teaching and the subjects to be taught are discussed. The ideal setting for the initiation of teaching preventive medicine is one in which health conservation rather than treatment of disease is the major preoccupation of the student and the instructor; hence the supreme importance of an adequate health service and access to it for purposes of teaching medical students. Equally essential is suitable staffing of the service. Unless it is also the department of preventive medicine of the medical school, it should most certainly have close and effective relationship (through organization of staff) with that department as well as with the departments of physiology and internal medicine. Unless and until preventive (including social) medicine and public health is recognized as an essential discipline in the medical school, progress will be unsatisfactory. Provision for research and investigation is as essential in this as in any other department of the medical school and should be made available.

NERVE INJURIES CAUSED BY INTRAVENOUS INJECTIONS OF DEXTROSE

Six cases of injuries to the large nerve trunks (especially the median) of the upper extremities were observed by GEORGE E. HASSIN, Chicago (*Journal A. M. A.*, March 26, 1938), at the outpatient neurologic clinic of the Cook County Hospital during a period of eight months; all were caused by intravenous injections of dextrose. The instructive features in the cases recorded were predominant involvement of the median nerve, which was regularly affected in all the cases except case 6; the prevalent lesion of the sensory nerve fibers (the motor disturbances prevailed only in case 6); the long duration of the anesthesia, and the obscure mechanism of the origin of such nerve lesions. That they are due to the injections there can be no doubt, but it is doubtful whether they are caused by a possible nicking of the nerve by the needle. The presence of ecchymoses (cases 1 and 5) around the elbow would speak for such an etiology, though pressure by the adhesive plaster in holding the needle in place on the arm or the arm's fixation against the board combined with the long duration of the injections in patients debilitated and weakened by protracted illness (diabetes) or dangerous surgical states may also be responsible for the neuritic phenomena. The edema or swelling that was present in some cases can hardly be considered a contributing factor, as in other cases swelling was not mentioned. Probably several factors were instrumental in the causation of the lesions and should be borne in mind at the time the injections are given.

NOISE AND ITS EFFECT ON HUMAN BEINGS: NOISE CONTROL AS A BY-PRODUCT OF AIR CONDITIONING

In their dissertation on noise and its effect on human beings CAREY P. MCCOY, Detroit; EDWIN E. TEAL, Ann Arbor, Michigan, and WILLIAM N. WITHERIDGE, Detroit (*Journal A. M. A.*, May 7, 1938), conclude by saying

(Continued on page xxvi)



Nice... if you can get it

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ABSTRACTS

(Continued from page xxiv)

that the American Medical Association's Committee on Air Conditioning recognizes that proper air conditioning is one factor tending to diminish the ill effects of noise of some types. The procurement of closed windows, doors and other sound barriers commonly associated with artificial climates in public buildings, office buildings, department stores, theaters and so on may eliminate as much as 75 per cent of the noises of extraneous origin. In industry, air conditioning offers little promise of protection against noise for workers employed near the origin of noise. Vibration in ranges below audibility has a prominent role in the production of injuries arbitrarily classed as noise diseases. Although inaudible vibrations may involve occupied areas that may be air conditioned, obviously no protection can be secured from such vibrations by air conditioning. The compilation of material making up this report presents extensive evidence that genuine injury is widespread as a result of noise action and that noise deafness is the chief of these dysfunctions in terms of both frequency and severity.

TREATMENT OF ECLAMPSIA: CHAIRMAN'S ADDRESS

Since the appearance of Lazard's article on the use of magnesium sulfate in 1925, PIERCE RUCKER, Richmond, Va. (*Journal A. M. A.*, Oct. 2, 1937), has treated 129 consecutive cases of eclampsia with a maternal mortality of 4.65 per cent. He has not followed a routine but has been guided by certain principles: stopping the convulsions, good nursing care with emphasis on rest, promoting renal activity and digitalis. Magnesium sulfate intravenously has been remarkably efficient in stopping convulsions. His initial dose is 20 cc. of a 10 per cent solution. Frequently he has given a second dose of 15 cc. and occasionally a third dose of 15 cc. Under the head of good nursing care comes the avoidance of external stimuli. The patient should be kept on her side to lessen the chance of aspirating vomitus and other fluids in the mouth. The tongue should be protected during the clonic stage of a convulsion, and the nurse should be prepared to give artificial respiration if it should be necessary. Usually the author relies on water or cream of tartar lemonade to promote renal activity. The best way to give fluids to an eclamptic patient is by the stomach. When there is anuria or marked oliguria dextrose intravenously is resorted to, the strength being varied according to whether there is much or little edema present. Digitalis has a definite place in the treatment of eclampsia. Half a cat unit is given as soon as possible after the magnesium sulfate or sodium amylal. The author has never seen edema of the lungs when digitalis has been given.

EXTREME CARE NECESSARY IN USE OF SILVER NITRATE SOLUTION

From time to time, the Department has received reports of irritation of the eyes of infants following the use of silver nitrate solution. Since reactions of this kind may result from improper technique in the use of the solution, the Division of Maternity, Infancy and Child Hygiene has written all licensed midwives calling attention to the directions in the state silver nitrate outfit and to the diagram showing the correct way to open the tubes and express the contents. The letter also emphasizes certain precautions to be observed in the administration of the silver nitrate. To quote:

"After the eyelids have been cleansed, wiping from the nose outward with a pledget of cotton dipped in water that has been boiled, the lower lids should be pulled down and two drops of the solution placed in each. Be careful not to drop any silver nitrate solution upon the infant's face and avoid putting the drops directly on the eyeball itself; when the lids are closed, the solution will flow over the entire eye. The preparation should be permitted to remain for at least two minutes after which the lids should be wiped with cotton dipped in water that has been boiled."

It is extremely important that the eyes be cleansed before the silver nitrate is introduced into the lower cul-de-sac and flushed to remove the excess solution after the preparation has had time to take effect. *Health News*, New York State Dept. of Health, April 11, 1938.



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INDUSTRIAL DERMATOSES

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INDUSTRIAL DERMATOSES IN THE UNITED STATES

With the advent of compensation legislation in the United States, more attention was given to occupational diseases and with them to occupational dermatoses. When the United States Public Health Service, in 1928, decided to make studies in occupational dermatoses, some of the States had already gathered statistics concerning their frequency of occurrence and had made compensation laws concerning them.

At the present time in the United States, 25 States compensate for industrial dermatoses. The laws in these States vary considerably. Fifteen of them take in all occupational dermatoses, or at least those occurring in the principal industries in those States. The others have laws which limit the dermatoses to those cases due to certain substances.

Altogether, it is estimated that industrial dermatitis constitutes more than 65% of all occupational disease cases reported in the United States and from available records it is estimated that there are about 20,000 cases of industrial dermatitis with sufficient severity to lose time from work occurring in the United States. Actually there are many times this number because a large majority of cases of industrial dermatitis do not lose time from work and are not reported even though they may be treated by the plant physician or by the insurance company doctors.

From our own examinations of many cases of workers in various industries, we can conservatively say that more than 1% of the workers engaged in basic industry suffer some time during the year with an occupational dermatitis. Taking into account the fact that there are about 25 million workers engaged in industry, this would give a conservative estimate of about 250 thousand cases of occupational dermatoses occurring in the United States throughout the period of one year.

From available records of the compensation boards of the different states, it is estimated that the average case of industrial dermatitis receives

a compensation of about \$100, and that the average cost of medical care per case is also about \$100, so that an estimate of \$4,000,000 as the annual cost of occupational dermatoses in the United States is a conservative one.

CAUSES OF OCCUPATIONAL DERMATOSES

It can be stated in general that the majority of occupational skin diseases reported in the United States are caused by alkalis, oils, solvents, dyes and poisonous plants and acids.

All individuals are not susceptible to the same degree to skin irritants. The anatomical structure and the physiologic secretions of the skin are factors in susceptibility to external irritants. The defense mechanism of the skin against external irritants consists of the cornified cells of the outermost layer of the skin and the secretions of the glands of the skin. The cornified cells are tough and are insoluble in water and alcohol and will withstand the action of even fairly strong acids but are vulnerable to alkalis and sulphides. The perspiration acts as a diluent of irritants which are water soluble and the sebaceous secretions, consisting of cholesterol and liquid waxes, form a protective coating against water soluble irritants. The pigment of the skin also acts as a protective factor against certain skin irritants, especially against light. The perspiration and the sebaceous matter may, however, under certain conditions act as aids to irritants on the skin. We will speak of this later.

The vulnerable portions of the skin are the openings of ducts and hair follicles through which certain chemical compounds, especially those which are fat soluble, may easily enter. Thinning or breaks in the cornified layer of the epithelium also act as portals of entry for external irritants.

RACE

In so far as the characteristic texture of the skin and the complexion affect the defense mechanism of the skin, it may be said that race plays a part in predisposition to sensitivity to external irri-

tants. Blondes and thin-skinned individuals are more susceptible to certain irritants than those with darker, thicker and more oily skins. For this reason, many chemical factories will employ only Negro labor for certain jobs in which irritants are handled—as for instance, workers on filter presses, driers and grinders in synthetic dye manufacture. Workers having greasy, oily, thick skins withstand the action of such solvents as soaps, turpentine, naphtha, etc., better than do those with dry skins. On the other hand, in occupations where oils, greases or waxes are apt to soil the clothing, as for instance in oil refineries, machine shops and garages, those persons who have much hair on the arms and legs and who have excessive sebaceous secretions are more likely to develop acne-like lesions and folliculitis. Then again, in occupations where the worker comes in contact with water soluble irritant dusts, such as soda ash and lime, those who have an excessive perspiration are more likely to be irritated because these substances only irritate the skin when they are dissolved in water or perspiration.

In a study of skin hazards among workers in waxes, we found that the most severe cases of comedones and acne, due to those substances, occurred among those workers having dark, swarthy, oily skins and who were in the acne age.

The various portions of the skin of the same individual differ in susceptibility to external irritants. We have found the inner surface of the forearm and the upper arm and the anterior portions of the body are more often affected by industrial dermatitis than are the other portions.

DIET

The diet of a worker influences his susceptibility to external irritants. A number of investigators have proven that when animals have been rendered acidotic or alkaline, they have been rendered more susceptible to the action of external skin irritants. We can readily see that in human beings the diet may influence the pH of a perspiration and the pH of a perspiration certainly influences its ability to act as a solvent on external irritants. The pH of a perspiration also influences its action as a neutralizer of external irritants. For example, if a man is exposed to an alkali, such as soda ash, and he has a markedly acid perspiration, the acid of his perspiration is likely to neutralize the alkalinity of the soda ash, whereas if he has an alkaline perspiration, it may augment the action of the soda ash. We have partially verified this in industry.

AGE

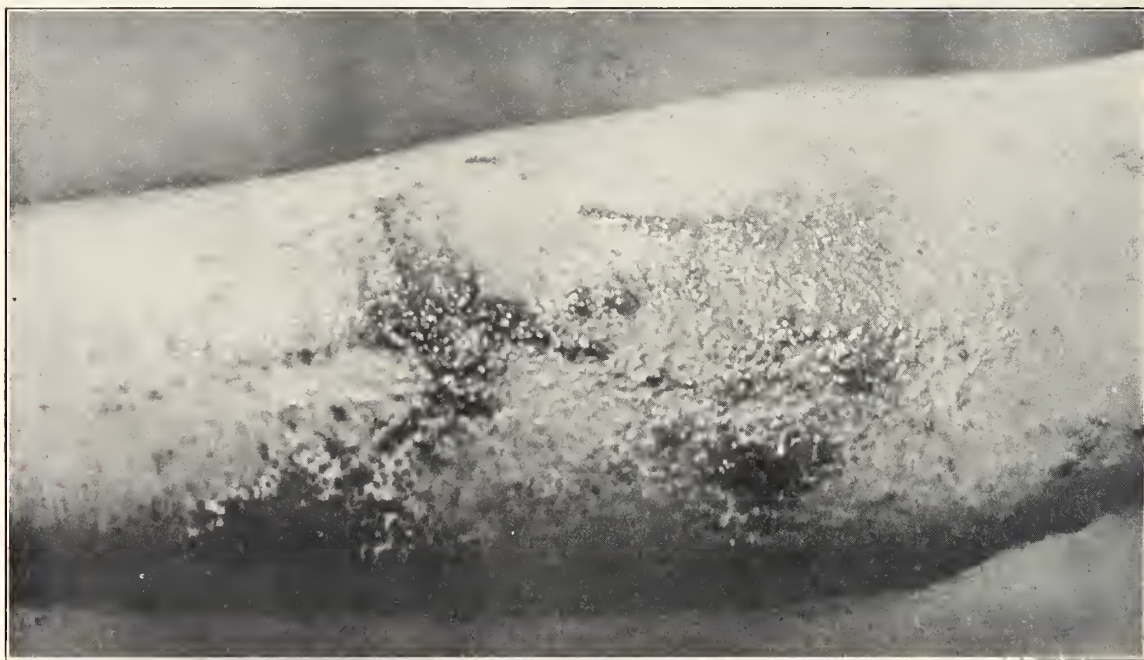
Age also seems to exert an influence on sensitivity to external irritants. Most of the workers affected with acute industrial dermatitis are young and new workers. On the other hand, the chronic, eczematoid types of industrial dermatitis usually occur in workers of middle age or beyond.

SEX

Women are very often irritated by substances in industry with which men usually work with impunity.

SEASON OF THE YEAR

Occupational dermatitis is more prevalent in warm weather. This may be due to the fact that



Vesicular dermatitis in chemical worker due to di nitro chlor benzol, an intermediate in the manufacture of Sulphur Black.

little clothing is worn in warmer weather and contact with skin irritants is more likely to occur. Although in those industrial diseases in which lack of cleanliness plays a role, the fact that men are less inclined to bathe after work in the winter than in the summer, may equalize or even exceed in the winter the rate of the summer incidence.

Presence of Other Diseases

The presence of other skin diseases, especially of the itching type where scratching tends to rub in any irritant which may be deposited on the skin, also predisposes to industrial dermatitis. It has also been noted that those workers suffering with seborrhea and with mycotic infections are more prone to develop industrial dermatitis than others.

Cleanliness

The most important predisposing cause of industrial dermatitis is, to my mind, the lack of cleanliness. Cleanliness of the environment—that is to say, clean rooms, clean floors, clean walls, clean machines and the air kept free from irritating fumes, vapors and dusts, will diminish the occurrence of industrial dermatitis. Personal cleanliness is of equal importance. The daily changing to clean underclothes and work clothes, cleansing shower baths immediately after work is finished, so as to remove potential irritants from the skin, are all important factors in preventing industrial dermatitis.

ALLERGY

By this we mean a hypersensitivity in which an antibody is produced in the system in response to an external irritant which acts as an antigen. This antibody can not be demonstrated in all cases. Most cases of industrial dermatitis are not due to allergy. They can be explained by changes in the

defense mechanism of the skin of the worker or by increase in the vulnerability of the skin, or by an excessive amount or concentration of the external irritant. However, the fact that there is a specific hypersensitivity of certain individuals to the action of many substances in industry can not be denied. I have seen cases where the mere presence in the same room with certain nitro compounds has produced pruritus in the hypersensitive individual.

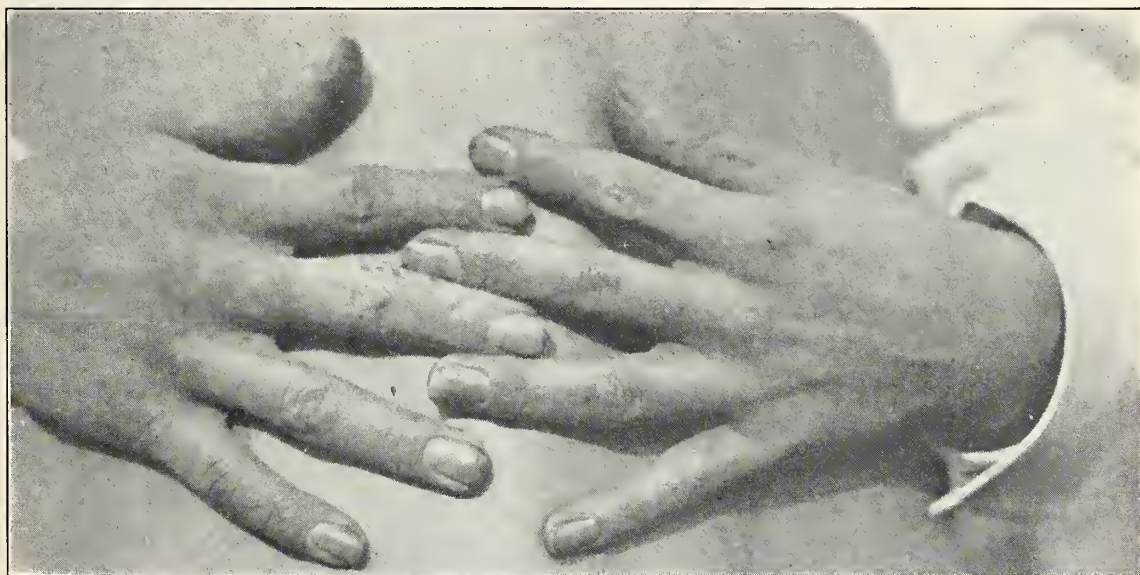
Allergy can be acquired by exposure to certain substances. This exposure may be through the skin or through the respiratory or gastro-intestinal tracts. Allergy to mercury, chrome and formaldehyde has been experimentally produced by investigators.

Desensitization has also been experimentally produced to these substances. In factories, we have noted workers who first developed a dermatitis after a few days' exposure to a substance and later on, after they continued the work for a period of time, the dermatitis disappeared and immunity developed and they become hardened," as they themselves call it.

Among the users of substances processed with chemicals, allergy is the principal cause of dermatitis because substances distributed to the public are harmless to by far the larger percentage of people. As for instance, furs, dyes, cosmetics, etc., while used by millions cause dermatitis in comparatively few.

The chief active causes of industrial dermatitis differ in various localities according to the prevailing type of industry. In rural communities, plant poisonings are prevalent, whereas in large manufacturing communities the chemical irritants are the chief causes.

A simple classification of the actual causes of industrial dermatoses is as follows:



Candy Maker. Dermatitis due to oil of cinnamon.

1. **Mechanical and Physical:** Under this heading we have such conditions as cuts, abrasions and pressure. The latter two may cause painful calluses as occur on the hands of the glass blowers from handling heavy blowing iron. Heat, which may cause scalds in the wet form and burns in the dry form. Cold, which causes such conditions as chilblains and frost bites in workers exposed to the weather.

Radiation, both artificial and natural, as from the x-rays and radium which causes severe burns and cancers among technicians and radiation from the sun which causes characteristic changes in the skins of such workers as sailors and farmers.

2. **Chemical Irritants:** These may be divided into general irritants and specific irritants. The general irritants are those which will irritate the skins of all individuals. The specific irritants are those which will irritate the skins of certain hypersensitive individuals. The general irritants may be divided into inorganic and organic. The inorganic irritants can be subdivided into acids and their salts, alkalis, and the salts of irritant metals. The principal inorganic irritant acids and their salts are sulphuric, nitric, hydrochloric, hydrofluoric, chromic and arsenous. The principal irritant alkalis are sodium and potassium hydrate and carbonate and calcium oxide and calcium hydrate. The principal metals which have irritant salts are mercury, chromium, nickel, silver, zinc, arsenic, antimony and phosphorous.

The principal organic general irritants can be divided into organic acids and their salts and organic solvents. The principal organic acids which may cause dermatitis are oxalic, carbolic, cresylic, formic, lactic, acetic, maleic, hydrocyanic, phthalic and abietic. The principal organic solvents which may cause dermatitis are the various alcohols, turpentine, benzol, carbon bisulphide, carbon tetrachloride, trichlorethylene, amyl acetate, butyl acetate, toluol, gasoline and solvent naphtha.

3. **Specific Irritants:** These cause dermatitis only among certain hypersensitive individuals. Many dyes and their intermediates are skin irritants. Aniline oil, nitro compounds, compounds of naphthalene, benzidine, benzanthrone and many of the sulphonic acids. Certain of the dyes cause dermatitis—fur dyes among which are paraphenylenediamine, para amido phenol, aniline black. Leather dyes among which are amido azo toluene, amido azo benzene, Bismarck Brown and Negrosine.

Photo developers often cause dermatitis. The principal one is metol. Others are paraphenylenediamine and pyrogallol. Soaps often cause dermatitis because they contain free alkali, especially when mixed with water and also because some of them contain certain substances, such as phenol or cresol, in order to make them disinfectants, and they also sometimes contain perfumes which may irritate hypersensitive individuals.

Many fabric dyes have been reported to have caused dermatitis. I can not give a full list of them, but some of the principal ones are Crystal Violet, Malachite Green, Methyl Violet, Victoria Blue, Victoria Green, Metanil Yellow, Chrysoidine, Auramine and a great many of the dyes which require chrome mordants.

The rubber compounds and their impurities often cause dermatitis. Wild rubber, that is, rubber obtained from wild rubber trees in the forest and gathered by native labor and smoked or cured over fires using certain nuts, contains many of the products of combustion, such as phenols, acetic acid and the tarry matters all of which are potential skin irritants. Plantation rubber is also cured by smoking, but only the surface of it contains the products of combustion and this is easily washed off before the rubber is used for manufacturing purposes. Many of the compounds used in rubber are skin irritants. The accelerators, substances which are used to hasten the vulcanization of rubber are often the causes of skin irritation among rubber workers. The principal accelerators which have caused dermatitis in the rubber industry are hexamethylenetetramine, commonly called "Hexa," the guanadines,

tetramethylthiuram disulphide, commonly called "tuads," mercapto benzo thiazole, commonly called "Captax," and triethyl trimethyl triamine, commonly called "Trimene." Para and Ortho toluidine have also caused dermatitis. Antioxidants are also used as compounds of rubber in order to prevent the rotting or oxidation of rubber. Phenyl Beta naphthylamine is one of the common rubber anti-oxidants which sometimes causes dermatitis, especially if it should "bloom" out of the rubber.

Many of the insecticides and fungicides are skin irritants. The compounds of mercury, arsenic, fluorine, nicotine and pyrethrum are the principal irritants in this class of chemicals.

Explosives are also irritants to a considerable number of workers. During the World War, when explosive manufacturing plants had to be rapidly built and safety precautions were at a minimum, dermatitis among munitions workers was very prevalent. Some of the principal offenders among the explosives are trinitro toluene, tetra nitro methyl aniline, trinitro resorcin, fulminate of mercury, picric acid and its compounds and styphnic acid and its compounds.

Dermatitis may also arise in the manufacture and use of cosmetics. Many cosmetics contain irritant dyes and the essential oils used in cosmetics and perfumes are nearly all irritants if used in sufficient strength.

The vegetable and the mineral oils are also frequent causes of dermatitis. In machine shops and among mechanics the cutting oils and the cutting compounds are the chief offenders. Petroleum distillates, such as gasoline and lubricating oils also cause dermatitis among garage men, automobile mechanics and other people using them.

Plants: Many plants are irritating to the skins of certain individuals and gardeners and florists may suffer from dermatitis from them. Among the most common plant irritants are Poison Ivy, Sumac, Poison Oak, Pyrethrum, Cocobola, Brazilian Walnut and Primrose.

Biologic Agents: These are often the cause of industrial dermatitis and may be subdivided into three classes:

1. *Parasitic Insects*, such as will cause grain itch, straw itch and linseed itch.
2. *Bacterial Infections*, such as erysipeloid caused by the bacillus of swine erysipelas and occurring among butchers and carcass handlers; anthrax occurring among hide and wool handlers, and pyogenic infections.
3. *Fungus Infections*, such as monilia infections, occurring on the hands of fruit packers; Ringworm infections occurring among barbers, wool sorters, fur handlers, animal handlers and bath attendants.

The actions on the skin of these various causative factors may be classified as follows: Some act as

1. **Keratin and Fat Solvents**, such as mild alkalis and soaps.
2. **Dessicators, or Hygroscopic Agents**, which take the water out of the skin, such as sulphuric acid and powerful alkalis.
3. Some are **Protein Precipitants**, such as heavy metal salts, which form albuminates in combining with the skin.
4. Some are **Oxidizers**, and by their strong affinity for the hydrogen in water, will liberate oxygen. Such oxidizers are chlorine gas, peroxide of hydrogen, chromic acid and its salts.
5. Then, there are substances which tend to *hydrolyze* when coming in contact with the moisture of the skin and form irritating compounds. An example of this class is Hexamethylenetetramine, which on hydrolyzing, first forms formaldehyde and then later goes on to formic acid.
6. There are certain substances which act as stimulants to the keratin-forming cells of the skin and are apt to cause new growth. Arsenic, petroleum products and aniline compounds are examples of this class.

7. There is still another group which is known as *Sensitizers*. After exposure to them for varying lengths of time, the skin becomes sensitized to their action. These substances may be called *Anaphylactoid* in their action. The nitro and the nitroso compounds and certain vegetables and fungi belong to this class.

Hypersensitive workers may not immediately upon coming in contact with an irritant, develop a dermatitis. A period of time usually elapses. This period may vary from a few hours to a few days. Some workers develop only a mild dermatitis and are able to continue working and finally they become immune. Others develop so severe a dermatitis that it necessitates their discontinuing work. These usually do not develop an immunity. The immunity, if developed, in most instances lasts only a short time—from a week to a month after discontinuing work. There is one class of worker, and fortunately this type is rare, who after working without any trouble for many years, suddenly becomes sensitized to the materials which he formerly handled with safety and develops a severe dermatitis. These workers never become immune. They may even develop a polysensitivity to many of the ordinary materials of daily life and as a result suffer from chronic, incurable eczemas.

DIAGNOSIS

Workers may have inflammations of the skin due to causes other than the hazards of their occupation. Therefore, it is important to determine whether a dermatitis from which a worker is suffering is of industrial origin—first, because it has a direct bearing on the treatment of the case and on the prevention of its recurrence. Second, because of the compensation involved, and third, in order to determine who pays the physician's fee.

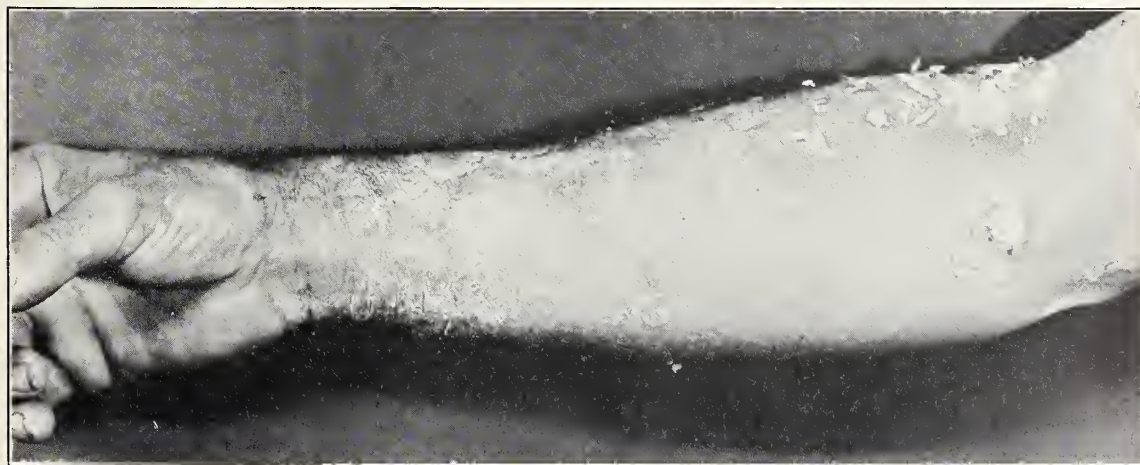
If it can be determined that the dermatitis is due to exposure to certain occupational skin hazards, then the major portion of the treatment consists in preventing further contact with these hazards. That is, removing the patient from his working environment, or providing him with suitable protective clothing. In these cases the preven-

tion of the recurrence of the disease consists in preventing contact with the offending material either by methods stated above or by installing proper safety measures, such as totally enclosed processes, adequate ventilation, clean work rooms, clean clothing, etc.

The compensation laws in many of the States are so worded that if a physician undertakes to treat a worker and he makes a diagnosis that the disease is of industrial origin, then his fee is practically taken care of either by the Compensation Commission or by the insurance carrier. But if after treating the patient the physician should determine that the dermatitis is not of industrial origin, the employer or insurance carrier will not pay for the treatment and the physician must look to the patient for his compensation. You can readily see that this has a tendency to make the physician lean towards a diagnosis of industrial dermatitis because very often his chances of being paid a fee by the poor worker is uncertain. It is to the advantage of insurance carriers and Compensation Boards to devise means to remedy this condition.

There is no one factor upon which a diagnosis of industrial dermatitis can be made. In most instances the appearance of the lesions gives no clue to the irritant. Especially is this so in the acute and chronic eczematoid types of occupational dermatoses. All of the following factors must be considered and each one forms only a link in the chain of evidence on which a diagnosis of industrial dermatitis should be made:

1. **History:** The history of the dermatitis is most important. In order for the dermatitis to be considered as of possible occupational origin, it must be brought out that such a dermatitis was not present before the patient entered on the occupation. It must also be shown that the dermatitis developed during the period of industrial exposure, or after a lapse of a reasonable incubation period since the cessation of exposure. This incubation period should not be over a week. If the history



Dermatitis, exfoliative stage, in rubber worker, due to an accelerator intermediate, Nitro-Captax.

shows that other workers similarly employed are similarly affected, or that new workers at the process are usually similarly affected, then the possibility of a diagnosis of industrial dermatitis is strengthened. If the history should disclose the fact that the patient has had similar attacks of dermatitis previous to the present exposure, then the possibility of the present attack being due to his occupation is weakened, but not necessarily entirely done away with, because it may be possible that in his previous employment he may have met with the same irritant or conditions which are now causing his dermatitis. Knowledge by the physician of the working processes in which the patient is engaged and the substances with which he comes in contact is important, because this enables him to know whether the worker is exposed to known irritants or to conditions which tend to cause dermatitis. For instance, if a worker appears with a dermatitis of the hands and forearms and states that he works on a rubber mixing mill, then we know that he is exposed to irritant rubber compounds and is more likely to develop an occupational dermatitis than is a rubber worker who handles only cold vulcanized rubber objects. If the history shows that the dermatitis develops whenever the worker is at work, gets well or improves when he is away from work and again recurs when he returns to work, then the history itself establishes a definite cause and relation factor between the occupation and the dermatitis.

2. Site of Eruption: The site of the eruption is also important. In examining patients, they should be completely divested of clothing. This may in many cases reveal areas of dermatitis on portions of the body not complained of by the patient and may give the clue to a proper diagnosis. Occupational dermatitis usually begins on the exposed parts—the hands, the fingers and the forearms, if the offending material is a solid or a liquid, and also on the face and neck, if it is a vapor. The covered parts of the body may also be affected, if fumes or vapors penetrate the clothing, or if the clothing is not frequently washed and becomes saturated with irritant chemicals. Thus, dermatitis may occur on the body of the worker handling irritant dusts which penetrate the clothing, such as finely powdered rubber compounds. Or dermatitis may occur on the covered parts of the body when the clothing becomes saturated with petroleum oils and waxes, especially if the worker does not take daily cleansing baths and if he does not change his work clothes daily.

Occupational bacillary infections such as erysiploid of butchers and verruca necrogencia of cadaver handlers also usually occur on the hands. The malignant pustule of anthrax among hide and leather handlers usually occurs on the head, face and arms.

Occupational dermatitis is also often found at points of friction on the body. The wrist, where the ends of the gloves or sleeves rub; the belt line,

where the belt or the top of the trousers cause friction; the ankle at the shoe tops; and the neck at the collar line, are all sites where friction aids the action of industrial irritants. Sometimes a dermatitis of undoubted occupational origin may become generalized. This occurs when the irritant is one to which the worker has developed a high degree of sensitivity. Many substances are known to be sensitizers. Nitro, nitroso and the chloro compounds are notorious sensitizers. In such instances a primarily localized dermatitis or burn may also sensitize the patient and a few days later a generalized dermatitis may develop.

3. Characteristic Appearance of Lesions: An industrial dermatitis of the acute eczematoid type begins as an erythema followed by papules and vesicles and when the vesicles break, by an oozing and crusting, no matter what irritant is the cause.

Occupational mycotic infections, such as ringworm among bath attendants, barbers, beauty parlor operators and yeast infections among cannery workers, usually occur on the hands, but the appearance is no different than that of ringworm or yeast infections of non-industrial origin.

There are, however, a few classes of industrial irritants which produce more or less characteristic lesions on certain portions of the body. Paronychia and onycholysis are common lesions among fruit and vegetable canners. The chlorinated naphthalenes and diphenyls produce acne-like lesions on the face and on the parts of the body which come in contact with the work clothes if the work clothes are not frequently washed and changed. Certain tar compounds also cause acne-like lesions on the exposed parts. Oils cause folliculitis and boils, especially on the hairy portions of the body. Petroleum and unrefined paraffin, grease and tar cause keratosis to develop on the hands and forearms, face and scrotum and these keratoses occasionally become malignant. However, the scrotal cancers reported in England as occurring among mule spinners and chimney sweeps have not been noted in this country. Certain hygroscopic chemicals, such as sugar, salt and lime which remove the water from the skin, and solvents, such as the petroleum distillates which remove the fat from the skin, may over a long period of time cause dry, fissured eczemas. Exposure to certain aniline derivatives, such as beta naphthylamine and benzedine, are known to have caused malignant growths. Gehrmann has reported papillomata of the bladder among the workers exposed over long periods of time to such aniline derivatives. Arsenic, especially if taken internally, has also caused new growths in the form of keratoses and epithelioma, particularly on the palms of the hands and soles of the feet. Keratotic lesions and excessive pigmentation around the face and the neck may be occupational among workers exposed to the sun, such as farmers and sailors.

Occupational dermatitis must be differentiated from such diseases as seborrheic dermatitis, fun-

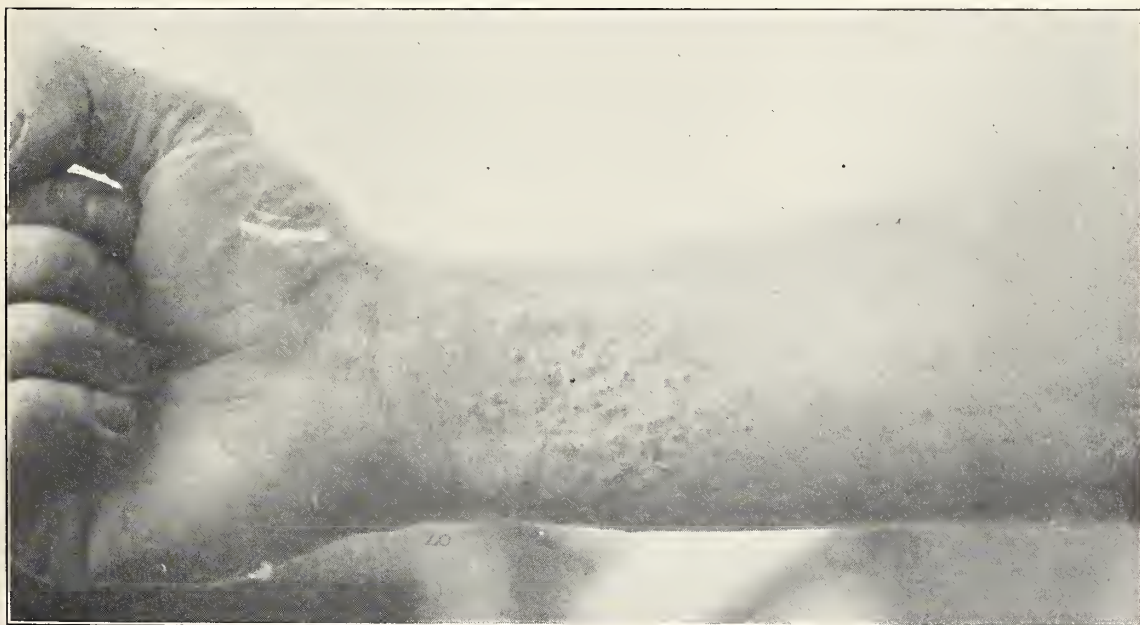
gus infections, lichen planus, impetigo contagiosa, pityriasis rosea, erythema multiforme, drug eruptions, neuro dermatitis and dermatitis due to contact with irritants met with outside of the place of occupation. The industrial physician or the general practitioner may at times be in doubt about the diagnosis of these conditions in a worker exposed to an occupational skin hazard, especially if he does not strip the patient and examine the entire surface of the skin, but to the dermatologist the characteristic location and appearance of seborrhoeic dermatitis, lichen planus, impetigo contagiosa and neuro dermatitis and the generalized eruptions of pityriasis rosea, erythema multiforme and drugs offer no great problem in differential diagnosis from occupational dermatitis. It is true that the presence of these conditions does not bar out the fact that an industrial dermatitis may also be present. In fact, the presence of certain of these skin diseases often predisposes a worker to an industrial dermatitis. The greatest difficulty in differential diagnosis is presented by dermatitis due to contact with substances met with outside of the place of occupation. In these cases the lesions are similar in appearance and location, and only the most careful consideration of all the facts can lead to a correct etiology. It is here that the patch test is of greatest value.

The patch test is based on the theory that if a dermatitis is caused by hypersensitivity to a certain substance, then if that substance is applied to an area of unaffected skin of the susceptible individual and left on for a period of time, it will cause an inflammation at the spot where it touches the skin. In doing patch tests, it is important to know what concentrations of certain chemicals can come in contact with the normal skin for a stated period of time without causing an inflam-

mation or reaction. It is also important that no general irritants, such as strong acids or alkalis are used in the patch test, because obviously they will burn any skin. The portion of the body on which a patch test is to be performed is also of importance because it has been found that the different portions may vary in sensitivity to certain chemicals. For instance, the tough horny portions of the skin, such as the palm of the hand, are less susceptible to irritants than is the more tender skin on the inner surface of the forearm. Then again, it has been found that the portion of the skin which is inflamed is more sensitive than other portions of the skin. For this reason, patch tests performed on uninflamed skin adjacent to the eruption are more likely to give positive reactions than when performed on more distant areas. It may even be necessary to wait until the eruption heals, so that patch tests may be performed on the portion of the skin which was actually affected.

If the worker is handling known irritants and his fellow workers are also affected, the cause is obvious and the patch test is unnecessary, but if he is the only one of the group who is affected, then he should be patch tested with the materials with which he comes in contact in the course of his occupation. If he is patched with only one substance, then a control patch should be placed on him. If he is patched with more than one substance, then any negative reaction from one of these substances serves as a control. It is also desirable to use as a control one of the workers who has no dermatitis.

In patching with solids, best results are obtained by moistening them, preferably with perspiration from the patient which can be obtained from the axilla. Sometimes it may be necessary, in order to obtain a reaction from a patch test, to use



Dermatitis in hide unhairer due to "red arsenic." Leather tanning.

perspirations of different hydrogen ion concentrations.¹ The results of patch tests must be correlated with the worker's particular occupation, the history of the dermatitis, the site and morphology of the lesion in order to arrive at a correct etiology. Patch tests are only a link in the chain of evidence on which a diagnosis of industrial dermatitis is made. A positive reaction only shows that the portion of the skin on which the patch was applied was at that time sensitive to the substance with which patched. In order to state that this substance was the cause of the occupational dermatitis, we must be sure that the patient was exposed to the substance in the course of his work and presuppose that the patient's skin was also sensitive at the time of industrial exposure.

When negative results are obtained from patch tests with the materials met with in the course of the patient's occupation, we must not hastily conclude that the dermatitis is not of industrial origin, because the skin area over which the patch was placed may not be hypersensitive, while the area covered by the eruption may be hypersensitive. Or, if the eruption has disappeared, the patient may no longer be sensitive when the patch test is performed but may have been sensitive at the time he had the eruption and when he was industrially exposed. Or, a negative patch test reaction may be due to the fact that the patch test never accurately reproduces actual working conditions, such as friction, maceration, heat, cold and sunlight, which may be additional factors adding to the irritating effect of the substance to which the patient is exposed. Or, it may be that the concentration of the chemicals applied as a patch test may not be as great as they actually were during industrial exposure. Or, finally, the actual industrial irritant may not have been discovered and applied as a patch test. When negative reactions are obtained from patch tests with substances encountered in the work room and the dermatitis which the worker has resembles a contact dermatitis, an effort must be made to perform patch tests with materials met with in the patient's home which may be the causes of dermatitis. For instance, certain plants, or perhaps paints or even new furniture. Tests of this kind will in some cases show that the patient is sensitive to materials met with outside of industry and not sensitive to the materials which he meets in his place of employment.

The technic of performing patch tests is important in obtaining and evaluating results. When patch testing for hypersensitivity to general irritants, such dilutions must be used in the tests as are known not to irritate the normal skin.² The insulating material inserted between the chemical and the adhesive plaster should be a non-irritant substance, such as unvarnished cellulose, or better

still, a thin sheet of mica may be used. The resin on waterproof cellophane itself may be an irritant as may be some of the compounds in dental rubber. The adhesive plaster used to hold the patch in place often itself causes an erythema of the skin.²

At the time the patches are removed there may be no reaction present, but some time later (a few hours to a few days) a delayed reaction may develop at the site of the patch. There is some dispute as to the significance of delayed reactions. Some hold that the skin was sensitized by the patch test but I think that in our present state of knowledge we should regard delayed reactions as denoting hypersensitivity just as undelayed reactions do. Patch tests properly performed and evaluated can be of great help in the diagnosis of industrial dermatitis, but if improperly performed and evaluated, they may lead to confusing and unjust conclusions.

Fungus infections also offer a problem in differential diagnosis from industrial dermatitis. A large percentage of workers are affected with mycotic infections in some form or another. Epidermophytosis, trichophytosis, tinea cruris and tinea versicolor are common skin diseases. Allergic reactions in the form of dermatoses on distant parts of the body resulting from these fungus infections are recognized by allergists and dermatologists. These allergic reactions or phytids may be confused with industrial dermatitis. If the phytids or the mycotic infections appear on portions of the body not exposed to industrial irritants, they are not so apt to cause doubts in diagnosis, but they often appear on the hands and here they are apt to cause trouble in diagnosis. The various tests with fungus extracts, such as trichophytin, are of little value in making a differential diagnosis because nearly every one has or has had a fungus infection and positive reactions are the rule. They are of more value when the tests are negative, because then they tend to show that the present eruption is not of fungus origin, although even here it is not absolute proof, because among other reasons the causative fungus may not be the one from which the testing extract is made. Then again, the fact that a worker has a fungus infection does not preclude the fact that he may also have an industrial dermatitis. In fact, it is held by some dermatologists that the presence of a fungus infection predisposes to hypersensitivity to other external irritants. Patch testing may offer some help but here again the industrial exposure, the history of the eruption, the site of the lesions and their morphology must all be carefully considered before a diagnosis is made.

Chronic eczemas, more or less generalized and of long standing, offer very difficult problems in etiology, especially when they are complicated by secondary infections. Patch tests are of little value

¹ Schwartz, Louis: Sensitivity to External Irritants in Industry, *N. Y. State Jour. Med.*, December 15, 1936, Vol. 36, No. 24.

² Schwartz, Louis, and Peck, Samuel M.: "The Irritants in Adhesive Plaster", *Public Health Reports*, June 14, 1935, Vol. 50, No. 24.

in most of these cases, because polysensitivity is usually present. It is impossible to determine whether the dermatitis and polysensitivity was caused by industrial exposure or whether the dermatitis and sensitivity was caused by exposure to substances encountered outside of the work room.

Cases sometimes appear before Compensation Boards claiming compensation for disability due to a dermatitis which the worker claims to have suffered as a result of his occupation, but which at the time the case is being heard, has disappeared. In these cases it is also difficult to determine the causative factor. If patch tests done at this time are positive, they are of great help, but if negative, they are not, because the patient may have developed an immunity by his recovery.

From these facts it can be seen that there is no one characteristic symptom on which a diagnosis of an industrial dermatitis can be made. The worker's occupation, the history of his skin eruption, its site and morphology and evaluation of the patch tests must all be taken into consideration by a dermatologist familiar with the substances and the processes of the worker's occupation before we can hope to make a true diagnosis as to the etiology of a dermatitis in a worker exposed to an occupational skin hazard.

CANCER IN INDUSTRY

Cancerous changes in the skin may occur in wounds or scars caused by industrial accidents, such as burns and wounds. Cancerous degeneration also occurs in so-called sailors' and farmers' skins, supposedly due to overexposure to the ultra violet rays of the sun. Radium and x-ray cancers among technicians and physicians you are familiar with. Certain chemicals are also said to cause cancers of the skin. The soot cancer of chimney sweeps described in England has not been described in America. Coal tar, certain oils and petroleum products predispose to the development of cancer.

Workers in arsenic also tend to develop keratotic lesions on the exposed parts. Such lesions have been reported by European observers, but in our studies in factories where arsenical insecticides are manufactured, we have failed to note their occurrence. We have, however, seen such lesions occurring as a result of the internal administration of arsenic over long periods of time.

An unusual number of papillomata and carcinomata of the bladder has been found to occur among synthetic dye workers both in Europe and in America.

Workers exposed to such dye bases as anthracene, benzedin and beta-naphthylamine, are said to have cancers of the bladder occurring amongst them thirty times more frequently than the average population.

Aniline and its derivatives are also said to cause the occurrence of cancer. Cancers of the liver have been experimentally produced in rats by feeding them certain aniline dyes, and also by rubbing

certain aniline dyes into wounds of the skin. Other substances said to cause cancer are Toluidin, Xylol, Xylidin, Cumidin, Anisidin, Dyphenylamin, Naphthol, Kongo-Red, Safranin, Benzoepurpurin and Blue-Rosanilin.

TREATMENT OF INDUSTRIAL DERMATOSES

A person who is so sensitive to the material with which he works that he cannot develop an immunity should seek some other occupation. Most of the cases of industrial dermatitis develop on new employees and are usually mild in character. Such workers should be given a protective ointment to put over the exposed parts, proper protective clothing, such as rubber gloves, aprons, etc., and kept on the job. Most of them will develop immunity. Those who do not should be given other work to do where they will not come in contact with the irritant. This usually effects a cure.

In applying medication to the lesions, only the mildest form of ointments or lotions should be used, such as boric acid or calamine. Strong ointments are apt to irritate the skin and cause more dermatitis.

Desensitization has not met with any encouraging results.

PREVENTION

The ideal prevention is to so safeguard the operations that injurious chemicals do not come in contact with the skin. This can be done by installing totally enclosed processes. Modern factories are being built so that the worker need not come in contact with any of the chemicals used from the beginning of the manufacturing process to the very end. New chemicals are brought to the factory in enclosed railroad cars, emptied by suction hose into enclosed storage containers from which they are sent by turning valves to the various retorts and kettles through a closed system. From these kettles the finished product is processed in totally enclosed machinery, such as filters, grinders, etc., and placed into closed shipping containers by means of hose or pipes. In some industrial processes, where this is not possible, or where there is old equipment, the workers must be protected by being compelled to wear suitable protective clothing, such as rubber gloves, aprons, masks and goggles. This protective clothing should be frequently cleaned and laundered. Over processes from which are given off irritating dusts or fumes, a special suction ventilating apparatus should be installed so that these irritants can not come in contact with the worker. The work rooms themselves should have proper and adequate ventilating equipment so that dusts and fumes have no chance to accumulate in any concentration. Rules for the use of protective clothing should be enforced. When respirators or gas masks are furnished, the men should be compelled to wear them.

Cleanliness is of prime importance. The floors and walls of the work rooms should be kept scrupulously clean as should all machinery. Convenient shower baths should be installed and the worker

should be compelled to take baths after work. In factories where there are special skin hazards, a double set of locker rooms should be provided, that is, one for street clothes and one for depositing the soiled work clothes. In this way, the worker coming to work will enter the first locker room where he will strip and leave his clothes in the locker. From there he proceeds through a hall to the second locker room where clean work clothes are waiting for him. From this locker room he proceeds to his work. At the end of the work shift he enters the locker room in which he had put on his clean work clothes. Here he deposits his soiled work clothes and goes to the shower baths. From the shower baths he proceeds to the locker room where he had left his street clothes and then goes home.

There are many protective ointments on the market designed for the prevention of industrial dermatoses. These ointments are supposed to act by forming a protective film over the skin and thus to prevent the irritant from coming in contact with the skin. Some of them are useful, others only imperfectly perform their function. They may be easily rubbed off during work or may be washed off by the perspiration. Some of them may offer protection against a particular chemical. There are very few of them, however, which can protect against strong alkalis. There are instances where a protective ointment may be of value, especially if used during the time pending installation of the more permanent protective measures which I have described. Protective ointments are usually washed off by the workmen before leaving the factory. This act also removes the irritant chemicals from the skin and is no small part of the protection supposed to be given by the ointment. Ointments should never be relied upon as permanent preventive measures, but only as temporary expedients pending the installation of proper safety appliances.

New applicants for work should be carefully examined and those having such predisposing skin conditions as previously stated should not be employed in occupations where there is a skin hazard. In occupations which present serious skin hazards, all applicants for jobs should be stripped during the medical examination and should be patch tested with the materials with which they are to work and if found to be hypersensitive, they should be rejected. The workers should be encouraged to report to the medical department all irritations of the skin, no matter how trivial. There should be frequent medical examinations of the workers to discover the presence of skin diseases which have not been reported. The physician in charge should have a working knowledge of dermatology and give proper treatment for these cases, or if he does not have such knowledge, dermatological cases should be sent to a consulting dermatologist.

It is not always necessary to remove the worker

from his job in order that he may get well. Indeed, it is sometimes better to allow him to work, if he has a mild dermatitis, and treat him while working in the hope that he will develop an immunity or become "hardened," as the workers themselves call it. A great many workers will become hardened and the immunity thus acquired usually lasts while working and sometimes will continue for a considerable period after contact with the chemical has ceased so that the worker may stay away from his job for two or three weeks and come back and still be immune. If, however, he stays away for a few months, he will in most cases lose his immunity and will again have to go through the process of becoming "hardened." Those workers who develop such a severe dermatitis that they can not get well while working should be removed from the job and when they have become well they should be placed in some other part of the plant where they will not come in contact with that irritant.

Municipal and state laws should be formulated to compel factories to report all cases of occupational dermatitis to either the Department of Labor or Health and these Departments in turn should report their cases to the United States Public Health Service. It is only by knowing where industrial dermatitis occurs that we can hope successfully to cope with it.

Municipal and State Departments of Labor or Health should have divisions of industrial hygiene within their departments, the inspectors of which should be required to make periodic inspections of factories in order that they may note the occurrence of occupational dermatitis and the safety precautions adopted for its prevention. Special studies should be made by the Bureau of Industrial Hygiene of unusual outbreaks of dermatitis in order to determine the cause and to institute preventive measures. Bureaus of Industrial Hygiene should strive for the passage of laws compelling factories to install proper safety devices against occupational dermatitis.

Insurance carriers should also have trained inspectors to inspect the factories of proposed risks before accepting them. If preventable hazards are found, the risk should not be accepted until proper safety devices are installed.

The manufacturers of chemicals should have laboratories to study the health hazards of their products and how to guard against them and they should impart this knowledge to their customers.

Plant physicians should take every opportunity to teach safety and cleanliness to the workers. They should also carefully investigate the causes of any unusual occurrence of dermatitis and, if necessary, call in consulting dermatologists and safety engineers to help discover the cause and to institute proper measures to prevent recurrences. Plant physicians should also advocate pre-employment examinations and the regular periodic examinations of workers.

THE PROBLEM OF INDUSTRIAL DERMATOSES

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Skin diseases associated with employment comprise a subject which is now of paramount importance. The reason for this is the fact that during recent years many states have changed compensation laws to include occupational diseases as well as accidents. Often it is extremely difficult to determine just what part the occupation plays in the causation of a skin disease, and it is well to consider occupational skin diseases in the following classifications.

The first group of eruptions to be considered are those which are obviously due to a direct contact with some irritant and which are independent of individual susceptibility or allergy. The most common examples of responsible irritants in this group are the acids and caustics. Strong solutions produce corrosive burns while the weaker acids are usually astringent in their effect. A careful history from the patient will usually elicit information leading to a correct diagnosis. Some of the common offenders are hydrochloric, sulphuric, oxalic, and hydrofluoric acids.

The second group is comprised of those dermatoses which in themselves are not directly due to occupation, but rather the occupation has been a predisposing cause or an aggravating factor. An example of this group is fungus disease. Fungus growth in general requires three factors for life: warmth, moisture, and suitable soil on which to grow. It is reasonable, then, to consider that certain occupations by their very nature are apt to be predisposing factors in the development of fungus disease. Workers in oil are prone to develop acne, and the obstruction of sebaceous ducts is undoubtedly an important factor in the causation of such cases. Skin disease of systemic origin may also be aggravated or predisposed by working conditions which affect the general health

of the individual although there is no direct contact with any specific agent.

The third group of industrial dermatoses is made up of those conditions which are due to direct contact with an agent which may not produce an eruption on everyone, but in which the individual, through a long association, has developed a sensitivity to the agent. It is in these cases that not only is the history of importance, but also the use of patch tests. It is frequently difficult in such cases to find the causative agent and it is important from a legal point of view to determine whether the contact occurred during employment or otherwise.

There are some simple observations that are of importance in making a diagnosis. Those dermatoses which are due to direct contact are usually located on the exposed parts of the body and may or may not be symmetrical, depending on the nature of contact. Those dermatoses which are dependent on the systemic effect of physical surroundings and agents are usually symmetrical and usually more pronounced on those parts of the body which are subject to the greatest irritation. These areas are the folds of the skin such as the axilla, cubital fossae, neck, groin, etc.

There is a great need for careful analysis of the possible hazards in the various industries, and it is gratifying to note that a tremendous amount of work along this line is being done. As a result of such analysis, industrial boards will find much of their work simplified and much may be accomplished in prevention of many such dermatoses. It is also obvious that in order to have a more proper conception of the possibilities, it is essential that industrial boards should have a doctor of medicine as one of their members. It is noteworthy that the House of Delegates of the American Medical Association passed a resolution to this effect.

THE PATHOLOGY OF INDUSTRIAL PULMONARY HAZARDS

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It has been known through the ages that any dust, vapor, or gas is irritating to the respiratory mucous membrane, and that if exposure is long or intense, harmful or even serious effects are produced. These deleterious effects may be manifested either locally or systemically and may be irritating or toxic.

As industrial workers are frequently subjected to these hazards, a clear understanding of the pathology induced by them should point the way

to better methods of prevention. These hazards may be divided into two groups, namely, (a) fumes and gases, whose effects are both as local irritants and as systemic poisons, and (b) dusts, whose effects are mostly on the respiratory tract.

DELETERIOUS FUMES AND GASES

Acetic anhydride, used in making camera films and rayon. Its fumes irritate the upper air passages.

Acrolein (allyldehyde), used in refining lubri-

cating oils. Extremely irritating to mucous membranes and causes pulmonary congestion. Two deaths have been reported.

Allyl alcohol, used in chemical industries; 150 times as toxic as methyl alcohol. Its vapor is highly irritating and causes pulmonary edema and hemorrhage, with gastro-enteritis. Five parts per million in air will irritate.

Ammonia fumes found in stables and refrigerating plants will, in the concentration of 250 parts per million of air, cause pleuro-pneumonia and in higher concentration, purulent bronchitis, broncho-pneumonia, lung abscess, infarcts, etc.

Amyl acetate (a solvent known as banana oil) causes mild throat irritation and vertigo, "dopiness," throat irritation, and tightness of the chest.

Bakelite varnish (due to its formaldehyde content) may cause asthmatic attacks, chronic inflammation of the respiratory tract, or broncho-pneumonia.

Toluene (methyl benzene), **xylene** (dimethyl benzene), **solvent naphtha** (a mixture of tuluol, xylol, and carmol), and **benzol** are used as solvents.

Of these, pure tuluol and xylol have narcotic properties but do not cause pathological lesions. Frequently they contain **benzol**, which may cause grave lesions of the central nervous system, paralysis of respiration, depression of the blood forming organs, and, by loss of antibody forming properties, lower resistance to the pneumococcus.

Carbon tetrachloride used as a solvent occasionally causes industrial poisoning, with jaundice, oliguria, edema of the legs, high blood urea, acute gastrointestinal symptoms, and in severe cases nephritis and broncho-pneumonia.

Cellusolve (ethylene glycol monethyl ether) is a solvent for lacquer and, in the baking process, its vapors may cause congestion and edema of the lungs, acute congestion of the kidneys, broncho-pneumonia, and gastric hemorrhage.

Benzine is used as a solvent and long continued inhalation may cause apathy, mental confusion, muscular weakness and tremor, anemia, irritation of the respiratory passages, pulmonary hemorrhage, and albuminuria.

Butyl-alcohol in 100 parts per million of air causes anemia with lymphocytosis, albuminuria, hemorrhagic areas in the lungs, and renal and hepatic degenerations.

Cadmium fumes, sometimes inhaled by zinc workers have a marked effect on the respiratory tract in the form of edema, generalized pneumonia, with emphysema and atelectasis, fibrotic thickening of the alveolar walls, and granular and fatty changes in the liver.

Dioxan (diethylene dioxid) is used as a degreaser, solvent and dehydrator. As it mixes well with oil or water, it is now used extensively in the laboratory for rapid mounting of tissues. When air contains as much as .12%, it has unpleasant effects; but when the air saturation reaches 1%, exposure to this atmosphere for six hours is fatal.

Effects are irritation of all mucous membranes and narcosis.

Ethylene chlorhydrin is used as a degreaser of machinery and as a thinner of colors in printing cloth. Inhaling its heavy vapor causes edema of the lungs, degenerative changes in the kidneys, acute congestion of the liver and spleen, focal inflammation in the lungs and ulcers of the bronchi.

Ethylene bromide is used as a refrigerant, and an air concentration as low as .005% is injurious, acting locally on the mucous membranes. It may cause death by degenerative changes in the parenchymatous organs, damage to the circulation, and perhaps a central paralysis.

Formic acid is used as a mordant, and when inhaled causes irritation of the upper air passages, and more or less severe dermatitis.

Hydrogen fluoride, used for etching glass and also used in artificial fertilizer; in the presence of moisture, it gives off fumes which have a caustic effect on the upper air passages, and causes ulcers and broncho-pneumonia.

Hydrogen sulphide fumes are given off in the spinning tanks in making rayon and constitutes a troublesome feature in this industry. While the first manifestations are upon the eye, inhalation causes pulmonary edema or pneumonia.

Lead poisoning is brought about far more rapidly by inhalation of lead laden air than by any other method of absorption. Lead laden air is dangerous if there is above 2 milligrams per 10 cm., and a dangerous absorption is anything above .1 milligram per 24 hours which, if continued, will induce chronic lead poisoning. In chronic lead poisoning, lead is stored in the long bones, liver, gums, and muscles. Absorption of 1 to 2 milligrams of lead per day will produce acute lead poisoning.

The diagnosis of lead poisoning is made by examination of the blood, urine, and stool. Pathologically, there is mild anemia. The red cells are slightly reduced, and polychromia and anisocytosis, with stippling of red cells, are present. There is little change of the white cells, although there may be a granulopenia with a relative lymphocytosis. It should be remembered, however, that as a rule most industrial workers show a slightly reduced red count (men, 4.5 million; women, 4.00 million) with white counts around 10,000 due to focal infections.

Blood examination and looking for "stippled" cells is the method used to prove or disprove plumbism. The standard accepted is that of the Leipsic Clinic, *i. e.*, "more than 100 stippled cells per million reds." Others claim that it is not the number that counts but rather the fact of having basophilic stippling and polychromia in blood that shows only mild anemia. In lead poisoning, acute or chronic, the 24-hour urinary excretion is estimated. Normally there is .04 to .08 milligrams of lead excreted in 24 hours, and figures definitely

above these indicate excess of lead in the body. Other standards are: In blood, any concentration of lead above .2 milligrams per 100 ml. is pathological, and in the feces anything above .1 milligram per gram of ash is pathological.

Tetra ethyl lead is used in making ethyl gasoline and was first placed on the market in 1933-1934. It was held responsible for over 100 cases of illness with at least 11 deaths. The symptoms were profound cerebral disturbance, insomnia, delusions, muscular twitchings, maniacal attacks, and death from exhaustion. Autopsies showed hemorrhagic broncho-pneumonia, generalized congestion, pulmonary hemorrhages, and thrombi in the brain. Volatile lead was found in quantity in the brain.

Nitrous fumes, when inhaled in large amounts, cause acute pulmonary congestion which comes on 6 to 24 hours after inhalation, followed by pulmonary edema or pneumonia. Continued exposure to dilute nitrous fumes may cause exhaustion, headache, sleeplessness, anorexia, gastrointestinal disturbance, and ulcers of the mucous membranes.

Oxalyl chloride, derived from a mixture of oxalic acid and phosphorus, when inhaled causes severe cough, dyspnea, and palpitation lasting 4 to 10 days.

Tetra chlorethone (ethylene tetrachloride) used as a solvent is so dangerous that its use is becoming rare. It is a narcotic poison four times as toxic as chloroform. When inhaled it causes acute yellow atrophy of the liver.

Vanadium workers develop a dry paroxysmal cough which may be severe enough to cause hemorrhage. Susceptibility to tuberculosis is greatly increased, and nephritis, tremors, failing vision, and melancholia may develop.

GASES

Carbon monoxide is frequently found in industry, garages, etc., and discomfort is felt at an air concentration of .02 to .03%, if breathed for one to three minutes. Carbon monoxide causes an oxygen starvation, transient or prolonged and manifested by headache, and congestion of the lungs, brain, spleen and myocardium, with hemorrhages of the skin and trophic changes in the nerves. Death is usually due to edema of the lungs or pneumonia.

Phosgene, a deadly war gas, is used in the dye industry, and inhalation causes acute congestion

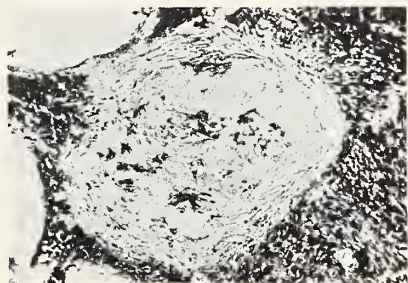


Figure 1. A silicotic nodule. (McNally)

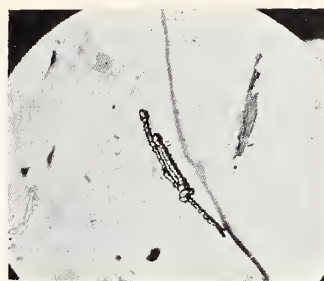


Figure 2. Asbestosis bodies in sputum; reduced from a magnification of 475 diameters.

and edema of the lungs which, if not fatal, is followed by pneumonia or lung abscess.

Sulphur dioxide inhalation stimulates a tolerance in sulphur ore workers, but may cause a chronic inflammation of the upper air passages with thick tenacious mucus.

Dimethyl sulphate, a war gas, is sometimes used in making certain dyes. Inhalation causes bronchitis, laryngitis, and pneumonia with sometimes generalized analgesia.

Nickel carbonyl is a gaseous compound of nickel and carbon monoxide and is used in the Mond process of producing pure nickel. Inhaled in this gaseous form, nickel deposits in a finely divided state appear over the entire respiratory surface, so that as it dissolves there is much absorption into the blood stream causing more or less severe intoxication. It has a special effect on the capillary endothelium, weakening the walls so that hemorrhages occur, especially in the brain and adrenals. In the lungs, there is congestion, edema, and consolidation. In fatal cases, delirium comes on before death. Air containing .1% nickel carbonyl is dangerous.

DUSTS

One has only to look through a sunbeam to know how much dust we breathe in ordinary air. In industrial plants, the concentration is often much greater and of specific kinds. Autopsies have shown that normal adults in cities have in their dried lungs an average of six milligrams per gram, or .6 per cent of dust and up to 1.1 per cent. In silicosis, the average is 2 per cent and concentration may reach 25 milligrams per gram, or 2.5 per cent. Dusty lungs or pneumokoniosis includes all respiratory diseases due to dusts. Organic inert dusts cause only transient irritation of the respiratory tract and it disappears when the dust is expelled (unless inhalation exceeds elimination), and when environment is changed. Of the inorganic dusts, there is the poisonous group including phosphorus, zinc, lead, manganese, arsenic, antimony, mercury, cadmium, chromium, copper, and radioactive dusts, whose effects are both local and systemic. The common industrial dust hazards are:

- Silicosis caused by silicon dioxide,
- Silicatosis caused by silicates in general,
- Anthraco-sis caused by carbon,
- Asbestosis caused by asbestos.

Collections of dust in the lungs are enhanced by certain minor defects such as the slower ciliary motion of the aged, mouth breathing, bronchial affections, and racial and familial susceptibilities. Certain groups of substances are in the main harmless for the reason that their inhaled dusts are soon dissolved in the lungs. The most common of these are: marble dust, limestone, calcium carbonate, gypsum, and calcium sulphate. Any fibrotic nodules formed in the lungs by these would be due to traces of silica that they might contain.

The irritating silicon dusts are pulverized rock, quartz, silica dioxide, asbestos, hydrated magnesium silicate, iron, aluminum, serocite (secondary mica), aluminum silicate, feldspar, mica (white and black), slate, shale, talc, tripoli, meerschaut, corundum, carborundum, sillimonate, and carbon (coal).

For practical purposes this list may be reduced to two items, namely, silicates and asbestos. The lungs of city dwellers contain more or less carbon dust, due to inhaled coal smoke, but unless it is extensive, it produces no harmful effects except to promote acute infections like bronchitis. Silicon containing dusts are a menace in proportion to the amount of silicon they contain. The pathological process known as silicosis and occasioned by inhalation of silicon dusts has been well described by many writers. The dust passes into the deeper bronchioles, or the alveoli, where it is attacked by phagocytes and by them carried in the lymphatics toward the hilus. The dust containing phagocytes (monocytes) accumulate in the lymph nodes of the hilus and soon form a block or jam. Around this blocking fibroblasts form and grow into thick whorls of fibrous tissue, inside of which the phagocytes mummify. Due to the jam, this process backs up in the lymph channels into the parenchyma of the lungs; and thus the characteristic fibrous whorls extend into the lung tissue. In fatal cases, a terminal broncho-pneumonia is usual.

There is a marked relationship between both asbestosis and silicosis to tuberculosis. According to H. C. Sweany,¹ the complex of tuberculosis

¹ H. C. Sweany and others: Chemical and Pathological Study of Pneumoconiosis with Special Emphasis of Silicon and Silico-tuberculosis. *Arch. Path.* 22: 593-633; November, 1936.

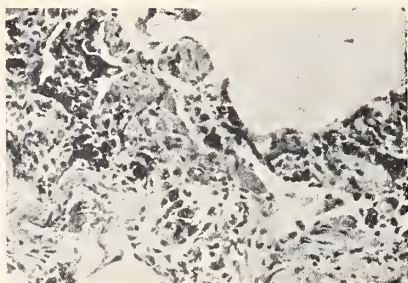


Figure 3. Asbestosis bodies with phagocytes and black granular pigment in fibrous lung; reduced from a photomicrograph with a magnification of 280 diameters.

and silicosis is responsible for all but a small minority of the deaths from pneumoconiosis.

Pathologically, the uncomplicated silicotic nodule is quite characteristic of the disease, but when tuberculosis is present the picture becomes confused. In this silico-tuberculosis complex, every change may be found from typical silicotic whorls to caseous tubercles, and to caseation of the silicotic nodules. An interesting observation is that in the presence of coal or iron oxide, because of their dehydrating effect on the tubercle bacillus, the progress of silicosis and tuberculosis is retarded. Therefore, coal miners, as a rule, do not show the same liability to tuberculosis which is so frequent in other silicon dusts. Also because of this retarding effect, the silicon lung content of coal miners may be twice that of the ordinary case of silicosis without any silicotic nodulation occurring. According to A. J. Vorwald and A. Landan,² silica stimulates the growth of tubercle bacilli, and tubercular lesions in the presence of free silica contain more bacilli than would grow in the presence of non-silicon dusts. Experiments have shown that free silica added to culture media stimulates the growth of the tubercle bacillus.

ASBESTOSIS

Asbestos is believed to be the most dangerous of the silicon dusts.

The type of lung lesion in asbestosis differs markedly from that of silicosis, in that bronchiolitis is the primary pathological process, and this is followed by a generalized fibrosis of the lung with fibrous thickening of the alveolar walls. Pleural adhesions occur, but there are no fibrous nodular whorls formed as are found in silicosis. In fatal cases of asbestosis, the lungs are deeply congested or pneumonic, areas of emphysema are seen, and the apices present honeycomb patches of emphysematous bullae. Partial pneumothorax is occasionally seen. In both asbestosis and silicosis, the fibrosis contracts the pulmonary vessels causing dilatation of the right heart. Death is frequently due to heart failure. Asbestosis occurs in two forms, amphibole and serpentine, and microscopically their dusts are not uniform. It may appear as rough, spherical bodies, or as elongated fibres.

One characteristic feature of asbestosis is the diffuse distribution of asbestos threads and so-called "asbestos bodies" throughout the lungs and in the sputum. Asbestos bodies are pieces of asbestos fibre about which globules or discs of amber colored acid soluble iron pigment is deposited. As these bodies can be found in the sputum in cases of asbestosis, the diagnosis of asbestosis can be made during life by sputum examination. The sputum is examined for the "asbestos bodies" and for tubercle bacilli. The

² A. J. Vorwald and A. Landan: *Arch. Path.* pages 8-18; July, 1937.

³ Industrial Toxicology. Alice Hamilton, M.D. Harper Bros., New York, 1934.

sputum is whitish in color and may be mucopurulent. To demonstrate the asbestos bodies, the following technique is employed:

Digest the sputum completely with antiformin;
Centrifuge three minutes at 2,000 revolutions per minute;

Pour off supernatant fluid, add water to sediment and shake;

Centrifuge again for three minutes at 2,000 revolutions per minute;

Examine sediment under microscope for asbestos bodies, using both high and low dry objectives.

Description: Asbestos bodies are of amber color and vary much in length and thickness, becoming narrower in the centre. They present irregular beaded contours and have bulbous ends; they appear in clumps, singly, or fragmented. They may be as long as 115 microns. In addition to this effect on the lungs, asbestosis fibres may

become lodged in the skin of the hands and feet and form asbestos warts. It is stated that 40 per cent of asbestos workers have these papillomas.

CONCLUSIONS

The pathology of most of the industrial lung hazards has been given, both light and severe effects, according to the concentration of the fumes, gas, or dust. Some of them are not life hazards, but should be taken into account.

As to the pathological evidence of silicosis, post-mortem, the criteria should be nodules in the lungs and a content of two or more milligrams of silica per gram of dried lung tissue.

For asbestosis the diagnosis should be the finding of "asbestos bodies" in the sputum. At post-mortem, the criteria is a generalized fibrosis of the lung and the presence of "asbestos bodies" in the lung.

347 WEST BERRY STREET.

SILICOSIS, AN OCCUPATIONAL DISEASE

(WITH AN ABSTRACTED REVIEW)

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Silicosis presents a comparatively new disease entity although it is one of the very oldest of human diseases and probably dated back to the Stone Age. In the literature, references to a similar condition are found in the writings of Hippocrates.

Silicosis is a disease of the lungs caused by the prolonged inhalation of silica dioxide (SiO_2). It is one of the pulmonary disorders, classified as pneumoconiosis. Under this general term are included all lung diseases produced by air-borne irritants such as coal dust, chemicals, silica, asbestos, talc, metals, etc.

A special committee of the American Public Health Association defines silicosis as "A disease due to breathing air containing silica (SiO_2), characterized anatomically by generalized fibrotic changes and the development of miliary nodulation in both lungs, and clinically by shortness of breath, decreased chest expansion, lessened capacity for work, absence of fever, increased susceptibility to tuberculosis (some or all of which may be present), and by characteristic x-ray findings."¹ This definition could well be changed to read: "Increased susceptibility to pulmonary tuberculosis and all acute and chronic respiratory diseases." The real clinical significance in this definition is that silicosis is a disease with a specific etiology: "the inhalation of silica or powdered quartz."

As with pulmonary tuberculosis, there may be no symptoms until the disease has reached an advanced stage or until there is a complicating respiratory infection.

The earliest reports on the disease were based

on clinical studies and autopsy findings. Some of the investigators thought it was a form of "dust tuberculosis." It was not until good x-ray films of the chest were possible that the lung changes could be studied in the living subject. Among the first to report were Drs. Lanza and Childs² who, in 1914 and 1915, made studies and chest x-rays on zinc miners in Missouri.

The real hazard of the disease was forcefully set forth in 1928 in U. S. Public Health Service Bulletin No. 187 entitled "The Health of Workers in Dusty Trades." This covered a survey made on granite workers at Barre, Vt., in 1924, 1925, and 1926. Since that time the medical profession, employers and employees associations, liability insurance companies, and governmental agencies have done research and made investigations that are rapidly producing accurate and reliable information.

Comprehensive published reports include the Medical Series, Bulletin No. 1, "Silicosis and Allied Disorders, History and Industrial Importance," by the Medical Committee of Air Hygiene Foundation of America, Inc.; "Silicosis and Tuberculosis," by Dr. A. E. Russell, U. S. Public Health Service; "Roentgenological Appearances in Silicosis and the Underlying Pathological Lesions," Reprint No. 1696, U. S. Public Health Reports; "Silicosis in the Foundry," by Carey P. McCord, M.D., and symposium on Silicosis, 1934, at Trudeau School of Tuberculosis at Saranac Lake, New York, June 18 to 22, 1934, Employers Mutuals, Wausau, Wisconsin.

¹ Medical Series Bulletin No. 1, Air Hygiene Foundation of America, Inc.

² Lanza, A. J., and Childs, S. B.: Miners' Consumption in Southwest Missouri. *J. Missouri Med. Assoc.*, p. 251, 1916.

ETIOLOGY

Report of the Committee on Etiology of the International Silicosis Conference, 1930³:

"To produce the pathological condition, silica must reach the lungs:

"(a) in a chemically uncombined condition, although the dust inhaled may be either a natural mixture of silicon dioxide with other dusts, such as occurs in granite, or an artificial mixture, such as scouring powder;

"(b) in fine particles of the order of less than ten microns."

There is no evidence as to the lowest of size in which the particles may be capable of producing the disease;

"(c) in sufficient amount, and over a certain period of time: these two factors are reciprocal variants. The minimum of these two respective factors has not yet been determined."

"There appears to be experimental evidence that the solubility of silica in the tissues is an important factor in the causation of silicosis."

McCord⁴ states:

"Whether or not silicosis develops in persons exposed to silica dust depends upon the following considerations:

"a. the percentage of free silica in the dust that is taken into the body.

"b. the length of exposure, day by day, and year by year.

"c. the size of the particles of silica in the dusty atmosphere.

"d. the number of particles present in some unit, such as a cubic foot of air.

"e. the susceptibility of the individual exposed, embracing such peculiarities as rate and depth of breathing, efficacy of natural protective mechanisms, position at work, previous medical experience, etc."

The time required to produce silicosis may not be stated with any reasonable certainty. Naturally, this must vary in relation to all the foregoing items. A few cases of silicosis possibly have been produced with an exposure limited to three months. An exposure of only eight months is said to have led to silicosis of such severity as shortly to have produced death. All of these are exceptional. No question may be raised as to the occurrence of silicosis after three years exposure. The majority, however, fall within the years between five and ten. At the other extreme, it is not unusual for workmen first to become disabled by silicosis only after fifteen, thirty, forty-five, or even sixty years of exposure. This does not imply that the silicosis process did not start at an earlier time, but that the disabling silicosis was established only after these long years of exposure.

³ A. E. Russell, P.A.S.; *Silicosis and Tuberculosis*. USPHS.

⁴ Carey P. McCord, M.D.; *Silicosis in the Foundry*.

Dangerous Concentrations of Silica Dusts

The number of particles per cubic foot of air regarded as constituting the threshold of danger naturally stands in relation to the mineral composition of the dust. Without at this time necessarily accepting stipulations of Sappington, a quotation is made from his estimate of dangerous quantities of dust:

"... If the free silica content of any given dust is 35%, the standard of safety can be placed at approximately 15,000,000 particles per cubic foot of air in the breathing zone of the exposed workman; if we reverse this situation and consider a dust which has a free silica content of 70%, then the health standard will be approximately 7,500,000 particles per cubic foot of air. When there is 90% to 100% of free silica in the air, such as when doing sandblasting, the standard is placed at approximately 6,000,000 particles per cubic foot of air. . . ."

PATHOLOGY OF SILICOSIS

The summary of the pathological changes in silicosis which was made at the International Silicosis Conference is as follows:

"It was agreed that the pathological changes of silicosis are:

"a. The development of a condition designated in South Africa as a fine bronchiolitis, characterized by an accumulation of dust filled phagocytes in the terminal bronchioles, and possibly some desquamation of their epithelium.

"b. The accumulation of dust-containing phagocytes about and in the intrapulmonary lymphoid tissue, especially in the sub-pleural zone, and their transportation through the lymphatics into the tracheobronchial lymph nodes."

(The conditions described above under a and b do not constitute the disease silicosis.)

"c. The gradual development of fibrous tissue within the mass of phagocytes and the formation of a characteristic nodule of hyaline fibrous tissue.

"d. Degenerative changes in these foci.

"e. The hyaline nodules increase in size by extension at their periphery. Coalescence of adjacent nodules takes place and brings about involvement of extensive areas of the lung."

(The conditions described under c, d, and e constitute the disease silicosis.)

DIAGNOSIS OF SILICOSIS

The diagnosis of silicosis is based on:

1—A definite record of prolonged employment in an occupation exposed to silica laden dust.

2—Good quality chest x-ray film showing bilateral changes which are known to be characteristic of the first, second, third, or fourth stage of the disease.

3—A carefully taken history and physical examination, with such laboratory work as would help to differentiate conditions simulating silicosis.

Pancoast and Pendergrass⁵ describe four roentgenological stages and list the diseases which roentgenologically might be mistaken for them:

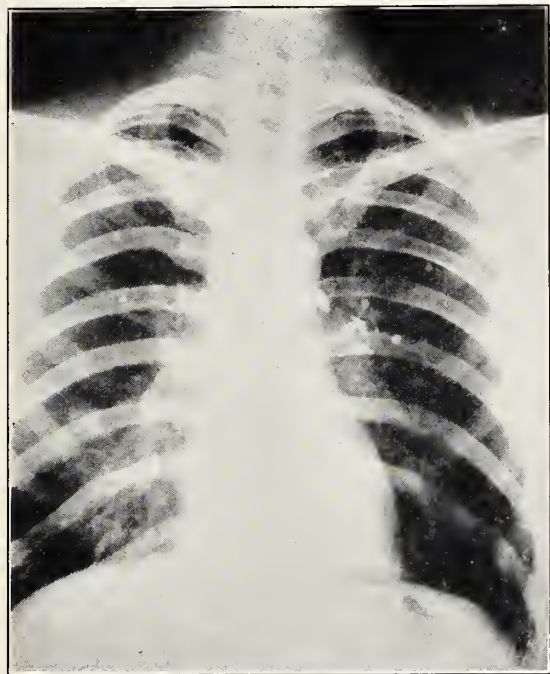


Figure 1. Male, aged 33. Ten years exposure in sand blasting department of foundry. No physical disability. Normal production in work. Roentgen diagnosis: first stage silicosis. Very small discrete nodules are shown in the original film.

First stage: The hilar shadows are more prominent and of greater density and homogeneity than normal; the trunk shadows and linear markings show increased prominence. This appearance is not pathognomonic of silicosis, unless shown on serial examinations and all other conditions producing like abnormalities have been excluded. Simulating conditions: passive congestion of the lungs as a result of cardiac decompensation, passive congestion associated with coronary thrombosis, advanced bilateral bronchiectasis, asthma, infiltrating or permeating malignant metastasis, polycythemia or erythremia, mycotic infections.

Second stage: The hilar and trunk shadows are noticeably accentuated and discrete dense nodules may or may not coexist. Faint homogeneous haze appears first in the right, middle or lower lung field and then in the left. Slight reduction or diaphragmatic excursion. Simulating conditions: interstitial pneumonitis, broncho-sinusitis, and rheumatic pulmonitis.

Third stage: Moderately advanced. Dense nodules, interstitial and para-trunkal fibrosis, heavy hilum shadows (may be coalescent densities and pleural thickening), restricted diaphragmatic excursion. Nodules may be conglomerate. Simulating conditions: tuberculosis, perinodular type; miliary tuberculosis, tuberculous broncho-pneumonia.

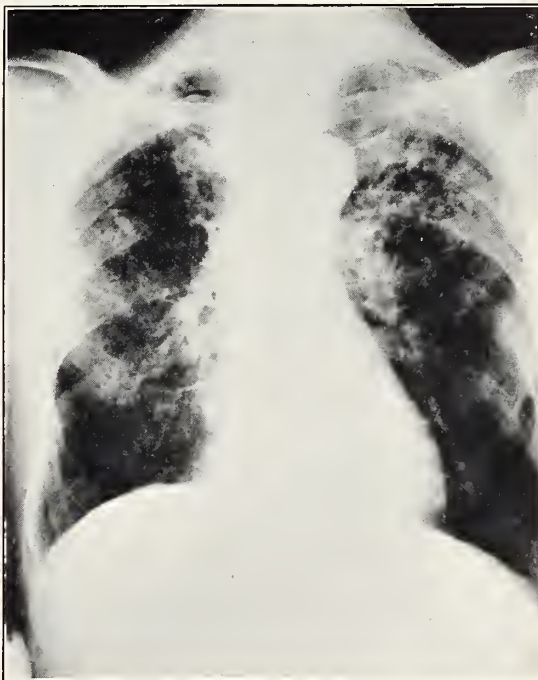


Figure 2. Male, age 54. Thirty-five years exposure as core-maker in foundry. Some physical disability and loss in production at work. Roentgen diagnosis: advanced silicosis, complicated by tuberculosis.

Fourth stage: Very far advanced. Dense pneumonic areas in peripheral lung fields. Simulating conditions: diffuse tuberculosis, and mediastinal tumor.

They also mention actinomycosis, sporotrichosis, and leptothrix infection.

"Massive shadows of homogenous density are cast by the areas of combined silicosis and infection, usually chronic in nature. The two processes appear to have developed simultaneously and unusual amounts of dust accumulate in the diseased area. Generalized nodulation usually occurs throughout the remainder of the lungs. Pleural densities can be differentiated in stereo-roentgenograms, and by over-exposure it often becomes possible to penetrate the extremely dense interpulmonary areas and to analyze their internal structure. Not infrequently cavities may be visualized that were completely overlooked with the usual technique. When due to tuberculosis, such lesions are often bilaterally symmetrical. If the process extends to the pleural surface, a tuberculous

⁵ Pancoast and Pendergrass: Roentgenological Aspect of Pneumoconiosis and its Differential Diagnosis. J. A. M. A., August 19, 1933.

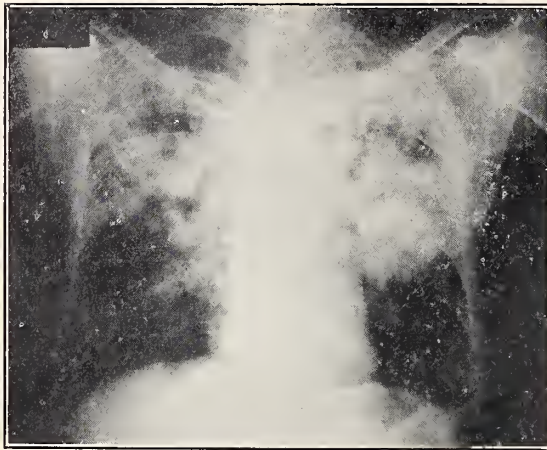


Figure 3. Male, white, aged 50, soft coal miner 32 years. Wassermann positive, five sputum specimens negative for tuberculosis. Died after six weeks' illness. Autopsy diagnosis: acute miliary tuberculosis and extreme anthracosis of both lungs.

etiology is postulated, while other infections are more often deep-seated."⁶

"Physical examination of an individual may reveal changes in percussion and auscultation, mild in the first stage and increasing with the progress of the disease. These alone are not sufficient to be of great value in diagnosis of silicosis."⁷

DISABILITY FROM SILICOSIS

"It was necessary, in administering the compensation regulations, to form some sort of diagnostic standards by which to determine the degree of disability associated with different stages of the disease. Its progress was therefore graded into four stages by the Miner's Phthisis Medical Bureau as follows:

Ante-primary silicosis:

Earliest detectable signs by x-ray. No symptoms.

Primary silicosis:

Appearance of symptoms, slight impairment of working capacity, characteristic lung changes.

Secondary silicosis:

Symptoms pronounced, impairment of working capacity more or less complete, general condition seriously affected, x-ray showing widespread involvement of the lung.

Silicosis with tuberculosis:

Disability considered complete, regardless of what stage of silicosis is present when infection intervenes.

The work of Dr. Watkins-Pitchford and his associates, in the Medical Bureau, established many facts in connection with silicosis, among them, the

great importance of tuberculosis as an accelerator of the lung fibrosis, the unusual susceptibility of silicotics to tuberculosis, the apparent progressive nature of the simple condition, even after removal from exposure, and innumerable points of value in diagnostic procedure."⁸

"Silicosis, when once established, strongly predisposes the lungs to infection, especially with the tubercle bacillus. The cause of this association of silicosis with tuberculosis is not clearly understood as yet, but its existence has been shown repeatedly by statistical study, clinically, and through pathological investigation and animal experimentation. In workers in occupations where a silica dust hazard is known to be present, the death rate is sometimes 2 to 10 times that of the general male population of working ages, and it has been shown to be greatly in excess even of the rate which prevails among workers in dusty trades where the dust exposure is not siliceous."⁹

The reports of the work of the clinic in zinc mining fields around Joplin, Mo., published in 1933, give the following facts:

"Total number of men examined in 1928 was 8,722: 74%—negative for silicosis and tuberculosis; slightly over 21%—silicotic; 3.5%—silicosis with tuberculosis.

"Total number of men examined in 1929 was 8,853: 78.6%—negative for silicosis; 17.6%—simple silicosis; 2.5%—silicosis with tuberculosis."¹⁰

"To straighten out some of the confusion, a few essential facts have to be stated rather dogmatically, according to the indications of the present knowledge on the subject:

"Fibrosis, not typical of silicosis in any way and not sufficient to cause disease, may be apparent by roentgenogram following the inhalation of coal dust. The extent of the blackening or pigmentation of the lungs is likely to be greater with exposure to soft coal (bituminous) dust.

The extent of the fibrosis is likely to be greater following the inhalation of hard coal (anthracite) dust. Experimentally the Public Health Service found that both anthracite and bituminous coal produce an inert reaction in animal tissues. Silicosis may occur in anthracite or bituminous coal miners when they work at getting coal from siliceous rock or when the coal dust they breathe is mixed with silica rock dust.

"The only one of the above conditions which definitely predisposes to tuberculosis is silicosis. Tuberculosis is not excessive in soft coal miners. It is not unfavorably influenced as far as can be known by the inhalation of coal dust alone."¹¹

DISTRIBUTION IN INDUSTRY

Silicosis may be present in any individual working in a dusty occupation, if the dust contains more than 35% free silica. Such conditions may prevail in the coal, metal, or iron mining industries; the granite, sandstone, marble, porcelain, slate, glass, cement and gypsum industries; excavation

⁶ Committee Report: Roentgenological Appearances in Silicosis and the Underlying Pathological Lesions. Reprint No. 1696—USPHS.

⁷ R. R. Savers, Surgeon, USPHS: Silicosis. Reprint No. 1626, USPHS.

work; the use of and manufacture of abrasives, and in foundries.

Coal Mining: "The proportion of silica present as quartz was 43% in the rock drilling dust, and 13% to 4% in the mine air dust."¹

Iron Mining: "In iron mining, as in coal mining, the danger is proportionate to the amount of silica in the rock worked. Iron itself is harmless and possibly to some extent protective, according to experiments by various workers, but if silica dust predominates in the combined dust, it is necessary, in the interest of caution, to abandon any idea that dust control can be ignored. In such circumstances, it appears that silicosis may be expected to occur in iron miners, though it is likely to develop more slowly than is the case when the exposure is to unmixed silica."¹

Granite Industry: "The free silica content of the granite rock worked was analyzed by both chemical and petrographic methods and was shown to contain an average of 70% of total silica, of which 35% was in the form of quartz, or free silica, the remainder consisting of combined silica, or silicates.

"The average dust counts taken in the various operations ranged from 59,000,000 particles per cubic foot of air in the pneumatic hand tool operations, down through 20,000,000 particles per cubic foot of air for general plant atmospheres, to 1,900,000 particles per cubic foot in offices. Maximum counts were found to be as high as 100,000,000 to 200,000,000 particles per cubic foot of air. Counts were taken both in winter and in summer but there was no significant difference.

"These wide differences in dust counts made it possible to divide the occupational groups in four general classes based on the amount of dust exposure:

- A. 614 hand pneumatic tool operators exposed to an average of 60,000,000 particles per cubic foot of air.
- B. 104 persons in occupations exposed to an average of 27,000,000 to 44,000,000 particles per cubic foot of air.
- C. 146 persons exposed to average general plant dustiness of 20,000,000 particles per cubic foot of air.
- D. 108 persons in occupations exposed to an average of 3,000,000 to 9,000,000 particles per cubic foot of air.

In the heaviest dust group (A), the incidence of silicosis was 100% after four years of work in exposure. After nine years exposure, 90% of group A had silicosis developed to a later stage. In groups A and B together, the prevalence reached 100% after 15 years of service. In groups A and B, the prevalence of tuberculosis complicating silicosis rose consistently with the length of exposure. In groups C and D there were only three cases of tuberculosis and there was no increase in incidence even when exposure was prolonged to 35 years. Silicosis appeared in groups C and D in proportion to the dust exposure.

"On the basis of these findings, it was concluded that a presumptive safe limit of dustiness for this type of work in exposure to rock dust containing 35% of free silica lay somewhere between 9,000,000 and 20,000,000 particles under 10 microns per cubic foot of air.

"Some of the silicotics who had left the industry and gone into non-dusty occupations were followed up, and it appeared that they developed tuberculosis to approximately the same extent as workers who remained in the industry."¹

Excavation Work in Building and Construction: "208 rock drillers were recruited for examination by roentgen ray. Evidence of silicosis was present in 57% of these, distributed in the following stages: 23% ante-primary stage (barely detectable); 19% first-stage (definite silicosis); 7% second stage; 8% third stage.

The definite stages were found mostly after 10 years' service and the advanced stage after 20 years in the employment. Those who had been doing underground work suffered most severely. Blasters, rock drillers, and excavators were affected in frequency and in severity in the order named."¹

Metal Grinding: "The first satisfactory studies of metal grinding processes were made in this country by Dr. Winslow, of Yale School of Medicine, and Dr. Leonard Greenburg, United States Public Health Service. Dr. Greenburg has since been made Director of the New York State Division of Industrial Hygiene.

"Dust counts were made in an axe factory in Connecticut and a real advance was achieved in the knowledge of the causation of silicosis in grinding processes when it was not only confirmed that the hazard was present when a sandstone wheel was used, but that the average number of small-sized dust particles in the air surrounding the wet process, as carried on at that time, was 15,800,000 particles per cubic foot of air, whereas in a dry grinding shop using exhausts on the wheel, dust counts showed only 154,500 particles per cubic foot. (Palmar water spray method.)

"Some idea of the amount of sandstone dispersed into the air by these operations is given by Greenburg's excellent description of the processes, in which natural sandstone wheels (practically pure silica), 72 inches in diameter and 12 inches wide, weighing 2 tons, last only about a month, being discarded when they are worn away to a diameter of 29 inches. It was the opinion of these investigators that dry grinding, with a suitable exhaust over the wheel, should be substituted for the wet abrasive wheels used, since these are much harder and lose less of their composition in grinding."¹

Foundry Sandblasting: "In foundries, a similar hazard occurs in cleaning the molded metal articles by means of a jet of sand.

"In April, 1931, the Wisconsin Manufacturers' Association requested the Metropolitan Life Insurance Company to extend a health survey of

foundries, which was being conducted for some of its group policyholders, to include representative foundries for a survey of twenty-one foundries of four general types: grey iron foundries, steel foundries, malleable iron foundries, and non-ferrous metal foundries. This brought in foundries of all sizes and sanitary conditions."

The report¹ indicates that foundry dusts in sandblasting operations have a free silica content averaging from 50 to 90%. Particle size determinations showed that 96% of the particles in the air were under 10 microns; 55% were under 3 microns.¹

In the Wisconsin study, the processes giving rise to dangerous dusts were found to be: sand conditioning and conveying; shake-out operations; and cleaning of castings by chipping, grinding, or sandblasting.

When the departments where these processes are carried on are not isolated or the process itself completely enclosed and exhausted, fine sand is apt to be distributed throughout the entire foundry, unnecessarily exposing large numbers of workers to the dust hazard."

In addition to the physical and chemical analysis of the air, employees who had been working for prolonged periods in dusty operations were selected for roentgenographic study as follows:

	Total Examined	Silicosis
Grey iron foundries-----	130	32
Steel foundries -----	62	27
Malleable iron foundries----	18	7
Non-ferrous metal foundries	5	1
	215	67

None of these cases was in a very advanced stage.

Six of the silicosis cases occurred with less than 5 years of exposure; 28 cases occurred with exposures of from 5 to 15 years; 33 cases occurred with 15 or more years of exposure. The majority of cases were found in men over 40 years old, but there were 17 cases in men of 30 to 39.¹

"In Massachusetts, the special commission to investigate industrial diseases also covered 227 foundries in the inspection. Many conditions were discovered which needed correction, but the hazard was not found to be as severe as that of granite cutting yards. Ten foundries were selected from those inspected for intensive study. Castings cleaners, chippers, grinders, sand conditioners, shake-out workers, sandblasters, and molders with the heaviest dust exposures, determined by standard methods of counting exhibited silicosis by roentgenogram. Out of a total of 1,614 foundry workers examined, 8.8% had definite silicosis and 2.6% in addition had silicosis complicated with tuberculosis."

SUMMARY

1. The disease silicosis is preventable by avoiding exposure to silica-laden dust.
 2. There is no treatment for the disease once established and it may be progressive even though the individual is no longer exposed.
 3. Pulmonary infection seems to predispose to silicosis and, vice versa, silicosis once established predisposes to pulmonary infection.
 4. All new employees in the dusty trades should have a pre-employment examination including a roentgenogram of the chest.
 5. Prevention in industry is a matter of engineering to eliminate silica-laden dust.
- 313 HUME-MANSUR BUILDING.

INTRACAPSULAR FEMORAL FRACTURE SELECTION OF TYPE OF TREATMENT

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Fractures of the hip are designated either as intracapsular (cervical, neck) or intertrochanteric. Although the sites of these two types of femoral fractures are separated by a distance of only one or two inches, the percentage of unions in the intertrochanteric fracture approximates one-hundred percent, while union occurs only in sixty-five to eighty percent of the intracapsular type. The mortality rate is about the same in each type of fracture. This article will be limited to the intracapsular type, the fracture of the neck of the femur.

The fractured hip is a problem equally of the general practitioner, of the general surgeon and of the orthopedic surgeon, and it is also a problem of the farm house, the village cottage and the city hospital. One might state that the general practitioner treats more of this type of fracture than does the general or the specialized surgeon. There-

fore, in any discussion of the subject as a whole, but especially in reference to the plan of treatment, these factors must be clearly segregated.

The age incidence cannot be explained upon the brittleness of bone in the aged. I believe that the dominant factor is the loss of the protective muscular action, through sluggish reflexes in the aged, which throws the full force of the stress and strain of the fall or the twist of the body directly upon the skeleton and at a point which is mechanically weak.

The fracture may be incomplete, and in these cases the pain and loss of function may not prevent the patient from walking. As a rule, however, these fractures under the stress of weight bearing finally give away and the typical clinical picture of a complete fracture appears. (Figure 1.) The diagnosis of an impacted fracture of the hip is common. Although one must concede that an



Fig. 1. Case A. M.: Patient 56 years of age complained of pain in the hip following a fall. Able to walk with but very little discomfort. The first x-ray was interpreted as negative for fracture. Three weeks later returned to clinic with considerable limp and pain. X-ray showed typical fracture of the neck of the femur. Review of the first film revealed a very fine line representing the fracture.

impaction at the line of fracture may occur, I am of the opinion that this condition is rare. The error in diagnosis is perhaps due in a large part to the misinterpretation of the x-ray films. In the fracture of the neck of the femur, with outward rotation of the outer fragment, the x-ray will show an apparent shortening of the neck, which has

been attributed either to an impaction of the fragments or to an absorption along the line of fracture. (Figure 2.) This distal fragment is further shown in the x-ray to be outwardly rotated by the prominence of the lesser trochanter, as it is swung from behind the shaft of the bone, and by the approximation of the greater trochanter to the

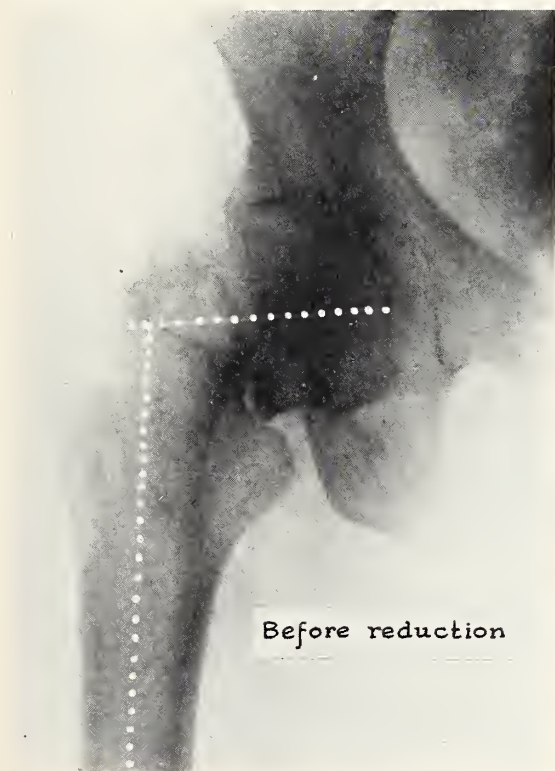


Fig. 2. Before reduction the lesser trochanter prominent, the greater trochanter close to pelvis, the neck of the femur apparently shortened and the femoral angle approaches 90 degrees.

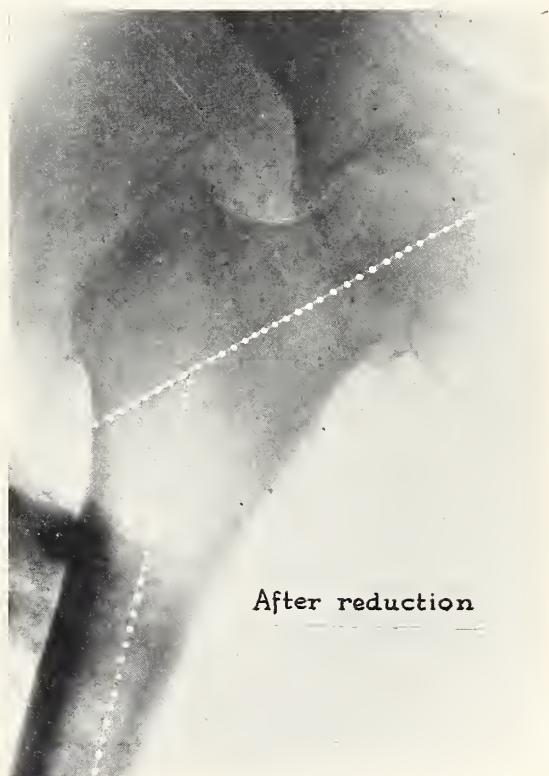


Fig. 3. After reduction—restoration of normal angle. Full length of neck shown.

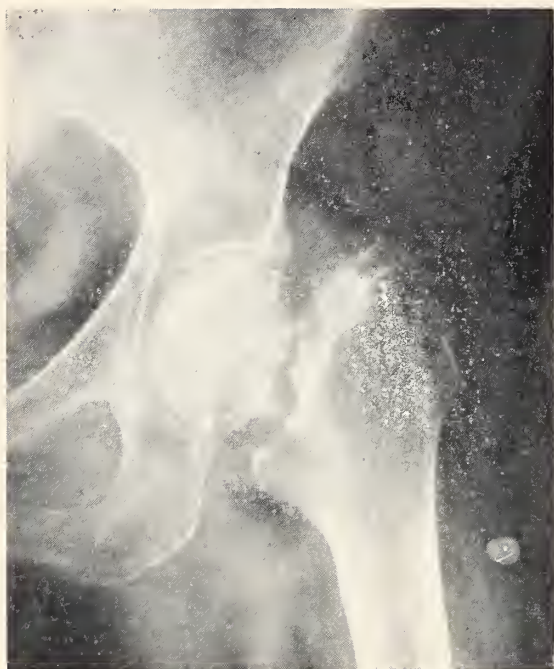


Fig. 4. Absorption and non-union along line of fracture.

side of the ilium, as this portion of the femur is rotated inward and backward. The apparent lessening of the length of the neck is due to the anterior and outward rotation of the neck portion of the outer fragment. With the leg rotated inward the x-ray picture is entirely changed (Figure 3) in that the lesser trochanter is seen only as a small shadow; the greater trochanter is far external to the pelvic bone and the full length of the neck of the femur is shown. It can be definitely stated that impaction, if it does occur, cannot occur when the leg is rotated outward in relation to the inner fragment. If one is certain that impaction is present, then manipulation for reduction is not indicated, for impaction would imply a perfect contact of the two raw surfaces, the ideal condition for union and complete healing.

A guarded prognosis as to recovery of the patient and as to healing of the fracture must be given in every fracture of the neck of the femur occurring in a person over sixty years of age. Regardless of the skill of the physician or the surgeon, regardless of the general condition of the patient following the accident, of the plan of treatment adopted, or the after care of the patient, a rather large percentage of the patients will die and a smaller percentage will have a non-union. The early clinical picture and the first x-rays do not give definite information as to the end result.

The cause of death has too often been attributed to some pulmonary complication, especially pneumonia. I have rarely, if ever, seen a death from pneumonia. Most of the cases have died from some disturbance in the brain, which has been termed a cerebral anemia, due probably to a marked

slowing of the circulation. A complaint of fatigue should always place the surgeon on guard. Loss of memory, lack of interest in surroundings, drowsiness, mental confusion which may even approach a maniacal stage, ushers in the period of final sleep. A systematic light exercise of the arms and the unaffected leg may, through the muscular contractions, be sufficient to keep the circulation up to the standard for the individual.

The causes for non-union (Figure 4) are a subject for much discussion and for a difference of opinion as to their importance. Some of the factors considered as contributing to non-union are disturbances in the circulation of the fragments (which lead either to an aseptic necrosis of the head or an absorption along the line of fracture), interposition of soft tissue between the fragments, a retarding influence of joint fluid, and a shearing force along the line of fracture. Although these conditions may be present and may exert a decided influence in a few instances, I believe that, in the large majority of fractures of the neck of the femur, the same two fundamental and basic principles dominate the healing of this fracture as are found in any fracture of a similar type of bone in another part of the skeleton. These two principles are: (1) an absolute and accurate contact of the two raw surfaces of the fragments through proper reduction, and (2) a splintage so efficient that this contact will be maintained over a period of time necessary for the healing process to be completed.

The portion of the femur which constitutes the neck is built of bone composed of red marrow and the cortex is thin and the periosteum scant or lacking. It is the same type of bone structure which one finds in the bodies of the vertebrae, the patella, the tarsal and carpal bones and in that portion of the long bones which is adjacent to the joints. Apparently the healing of a fracture of this bony texture is different from that which takes place in the shaft of the long bone, in which yellow marrow predominates and in which the periosteum is well developed. This difference in healing is manifested, not only in the repair of a fracture but also in the healing which takes place in a



Fig. 5. Leadbetter method of reduction. 1st step: traction of the flexed and outward rotated thigh.

resection or an arthrodesis of any joint, by an absence of demonstrable callus in the x-ray and by the restoration of the bony trabeculae.

Can it be that the prime requisite for the healing of bone of red marrow composition is an absolute contact of the two surfaces? If this contact is not obtained and absolute fixation maintained, does healing fail and either a fibrous union or an absorption of the bone ends occur in the fracture line? Is not this principle of close contact and efficient fixation the underlying factor in healing of an arthrodesis and of a resection of a joint?

If one can accept this hypothesis, then the importance of a close contact of the ends of the fragments in an intracapsular femoral fracture and the necessity of an efficient splintage becomes apparent as the essential factors in any plan of treatment of this fracture.

In the complete fracture of the neck of the femur with displacement of the fragments, two conditions exist, one of angulation and one of displacement of the ends of the fragments. (Figures 2 and 3.) The angulation occurs as a result of the abduction of the inner fragment with some adduction of the lower or outer fragment. In the normal femur, the neck forms with the shaft of the bone an angle varying from 115 to 135 degrees, depending largely upon the age and the sex of the individual. In the fractured hip this angle approaches one of ninety degrees. This angulation is not a factor in non-union but merely leads to a shortening of the limb and to a loss of the range of abduction as a result of the abducted position of the inner fragment. The displacement of the fragments may be caused by either the upward displacement or by outward rotation of the outer fragment, or both. The upward displacement is, as a rule, only of a moderate degree and is easily corrected by traction. Unless the over-riding is great, it too is not a contributing factor to non-union. The separation of the ends of the bone through the outward rotation of the leg is, however, of great importance and is perhaps the chief factor in failure of healing. It is again emphasized that recognition of these basic points is essential for any intelligent and efficient treatment of the fracture.



Fig. 7. Leadbetter method of reduction. 3rd step: leg extended, internally rotated, abducted with heel in palm of operator's hand.

The age of the patient is not a factor in establishing the intelligent plan of treatment. Every patient has the right to have his fracture reduced and splinted that healing may be possible. Solid union has been observed frequently in patients over eighty years of age.

As to the method of reduction, there is universal accord. To Whitman must be given the credit for presenting a plan of reduction in which the steps were orderly and based upon a clear conception of the actual movements of the fragments. This is the method of traction, abduction, and internal rotation. Leadbetter's plan has the same underlying principles of traction, abduction and internal rotation, but applied in a somewhat different way. He also gave a fairly reliable sign of contact or locking of the femoral fragments. His method is supported by the findings of Gaenslen, who, in experimental work on the fracture of the neck of the femur, found that if the capsule of the joint was interposed between the fragments, it would be released by flexion of the hip to ninety degrees and also that this degree of flexion unlocked the fragments, so that restoration of full length was possible. The Leadbetter¹ method, which is more or less universally accepted as the best method for reduction, is described as follows:

"The injured leg is flexed at the hip at ninety degrees, with the lower leg at ninety degrees to the hip. (Figure 5.) Direct traction in the axis of the flexed hip is then made, together with slight abduction of the femoral shaft. In this position the thigh is internally rotated approximately forty-five degrees. (Figure 6.) The leg is slowly circumducted into abduction, the internal rotated position (slightly beyond a neutral position) being maintained. * * * After the leg has been brought into the measured degree of abduction and internal rotation, the heel of the injured leg is allowed to rest in the palm of the operator's hand. (Figure 7.) If reduction is complete the leg will not evert itself. Should there be no locking of the fragments, however, the leg will slowly rotate externally."

With the hip satisfactorily reduced one now asks the pertinent question, "How do you want your hip treated? What type of fixation do you want

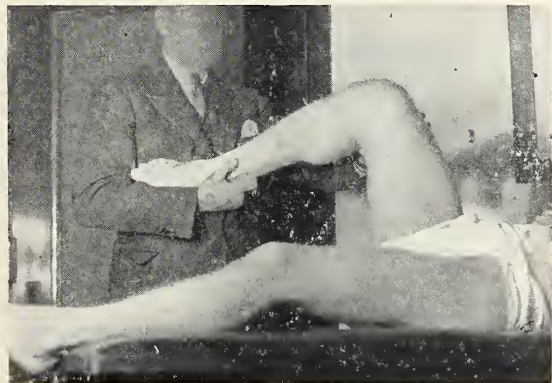


Fig. 6. Leadbetter method of reduction. 2nd step: internal rotation of abducted thigh.

¹ Leadbetter: *Jour. Bone & Joint Surg.*: Vol. xv, 934.

used? Will it be with sand bags or with adhesive strips and the old flat-iron hanging over the end of the bed? Will it be with a Thomas splint or the well leg traction apparatus, or shall a plaster of Paris splint be applied, or will you ask for some type of internal fixation by wires, nails, screws or bone pegs?"

One may dismiss the use of sand bags, weight traction, and the Thomas splint with the comment that they do not maintain the correction of the deformity nor give that degree of fixation of the fragments which is so essential for healing, and can, therefore, only be condemned. The credit for any healing which may follow their use must be given to "Old Lady Luck."

In the final analysis of the treatment phase of the problem one will find the fixation methods divided into two groups: first, that of external splintage in which the use of plaster alone is to be advocated, and, second, that of some type of internal fixation. The first group is available for all physicians and all surgeons under any condition of environment; the second group is limited to hospital service with x-ray equipment and to those surgeons with some special training and experience in application of the wire or nail. Although it can be stated that the use of internal fixation offers a more favorable prognosis for healing and a more comfortable convalescence for the patient, the use of a plaster of Paris splint has now, as always, a very definite place in the treatment of the fractured hip. Recent reports would indicate that union may be expected in 70 to 80 percent of the cases fixed with internal devices and in 60 to 70 percent with the use of plaster.

The plaster splint is to be advocated in those cases treated by the general practitioner, by the general surgeon whose experience in this type of case is limited, and in all cases where x-ray and surgical facilities are not available. Perhaps in those cases in which the fracture is at the base of the head and in which the inner fragment does not offer a sufficient depth for insertion of the pins or nails, the plaster splint should be used.

A detailed description of the application of a splint of plaster of Paris is unnecessary. Using a simple platform (Figure 8) with a peroneal rod, attached to the kitchen table, and a dish pan

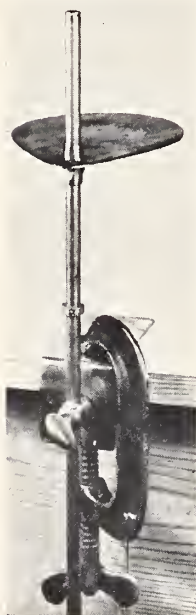


Fig. 8. Device for application of plaster splint in home.



Fig. 9. "No back" plaster splint. This splint can be carried only to the knee of unaffected leg.

inverted for the back support, an efficient splint can be put on any patient in any type of home. The padding should be as light as possible but the first layers are to be applied with great care in order that the inner surface of the splint be smooth. Not infrequently the plaster bandages at hand are of a narrow size and when applied will "ribbon" and thus cause ridges. This ridged lining may be prevented by laying narrow strips of card-board next to the padding. Sheets of card-board placed daily between the skin and the splint will prevent pressure sores over the sacrum. In order to give greater strength to the splint and to prevent breaking at the hip, a board should be placed between the legs at the level of the knee. By incorporating a short board in the plaster just above the pelvis, the splint may be cut down to that level and the patient allowed to sit up in bed to an angle of forty-five degrees. I have used with satisfaction, both from the viewpoint of fixation as well as from that of nursing care of the patient, the "no-back" splint (Figure 9) which is constructed along the plan outlined, but in which the entire back over the sacrum and the spine is cut away. In the application of the plaster splint



Fig. 10. Smith-Peterson flanged nail.



Fig. 11. Kirschner wires. (Anteroposterior view.)

one assistant should be assigned the single duty of maintaining internal rotation of the leg. When this original splint becomes loose it should be replaced so that fixation will be maintained. The objections to the use of plaster are the discomfort of the position of the patient, the long period of confinement to the bed, the development of pressure sores and the stiffness in the knee. The stiffness in the knee should receive immediate attention after the removal of the splint and may require the use of a short anesthesia to break up the soft adhesions to allow the patient to restore function in this joint.

Splintage by means of some internal device should and does give a better prognosis for union as the fixation is more efficient and the close contact of the raw surfaces of the ends of the fragments is more accurately maintained. Perhaps the pendulum has swung a little too far in this plan of treatment, especially in the after care of the patient, but the experience of many surgeons would support the contention that internal fixation is the best method.

Nailing of a fracture of the neck of the femur is not a new procedure. The earlier cases were fixed with a simple nail placed through open exposure of the fracture line, or often "blind." Albee suggested the use of an autogenous bone peg, especially in the old cases, and although his results were good, this method, perhaps on account of the surgical and technical difficulties, did not become popular. Smith-Peterson with the use of his three-flanged nail (Figure 10) gave the stimulus to the wave of internal fixation, and as this original work advocated the exposure of the fracture line and the use of a special nail, the profession turned with greater enthusiasm to the insertion of multiple wires with the Kirschner drill. (Figure 11.) At this time was also developed the x-ray technique which gives a lateral view of the neck of the femur and greater control of the "blind" wiring. (Figure 12.) As the cases were followed to the end result, certain defects were

noted in the use of wires, as well as nails, which led to the medical literature being flooded with new types of gadgets. Nails of all designs, lag bolts, screws, heavier wires, were placed under the guidance of many kinds of directors and were retained in their position through nuts and other similar devices. The wires may wander in and their removal be made difficult as the outer end slips within the cortex of the trochanter. The writer had the unusual and distressing experience of having a "lost" wire appear in the vagina and it was removed through that route. With an almost universal adoption of the internal fixation method, the operator using that device which pleased his fancy or which gave him a satisfactory experience, two schools developed, one advocating an exposure of the fracture line to attain better reduction and to remove any interposed tissue, and the other school advocating "blind" nailing or wiring under the control of the x-ray.

Inasmuch as all of the devices have the same ultimate goal of a firm fixation of the fracture after reduction, the choice of the type of device to be used will be determined by the personal desire of the operator based upon his own experience. I have used autogenous bone pegs, ivory pegs, beef bone pegs, Smith-Peterson flanged nails, placed "blind" and through exposure of the fracture line, and multiple wires. The Kirschner wire, or perhaps better the Granberry wire, which is a heavier wire, is my choice of the internal fixation devices. These wires do not require an open operation and therefore can be placed in the ordinary x-ray room, which is not always suitable for open operations. Basal anesthesia or even local anesthesia is sufficient for the reduction and for the insertion of the pins. The control of the pins is easy under the x-ray and the fixation is as efficient as that obtained with other devices. The removal of the pins can be done under a local anesthetic in the home without discomfort to the patient. I have no argument with the surgeon who uses some other device with which he is familiar. The end results

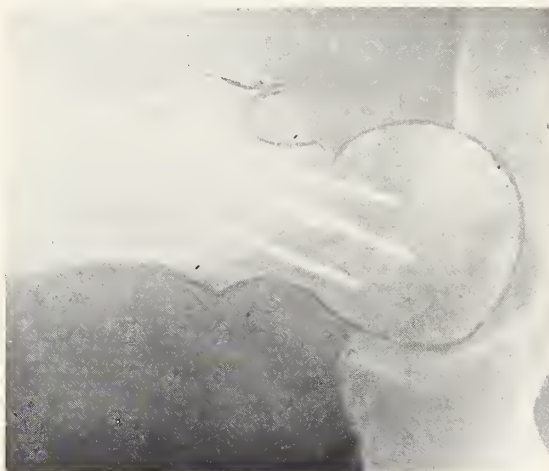


Fig. 12. Kirschner wires. (Lateral view.)

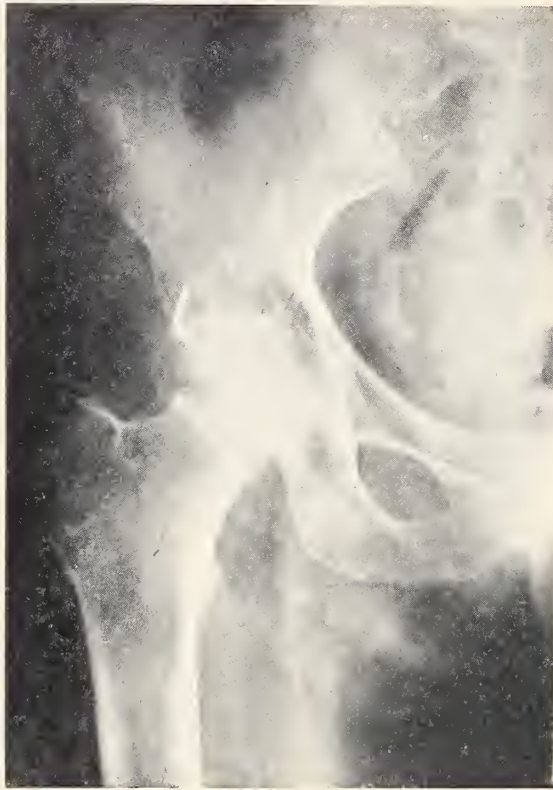


Fig. 13. End result. Notice absence of any callus. Healing indicated by restitution of trabeculae.

reported are practically the same for all types whether they are placed "blind" or through an exposure of the fracture line.

The method which I have used may be described briefly. The fracture is reduced by the Leadbetter method. A point is marked on the skin about two inches below the tip of the trochanter, and a sterile, thin metal rod or wire is placed on this skin, being directed from the marked area towards the anterior superior spine of the opposite side. This wire should lie over the neck of the femur. A film "tunnel" having been placed under the patient, an x-ray is now made which will determine the degree of reduction and also the relation of the pin to the general position of the femur, thus acting as a director for the insertion of the pins in the bone. A wire (Granberry type) is then driven through the skin and drilled through the trochanter into the neck of the femur. The drill handle is removed and with a small metal hammer the wire is gently driven in. The sound of the hammer blow gives a very definite note to indicate when the point of the pin has struck the cortical side of the neck or the more compact bone of the head, the note becoming one of a higher pitch. The second x-ray is now made, one view anteroposterior and the other lateral, the lateral view with the leg abducted and flexed to ninety degrees. If this first wire is well placed and to the right depth then three to five more wires may be inserted, an attempt being made to have them at

slightly different angles. The final films are then taken and any correction of the wires made that is desired. The skin is pushed in around the wires, the wires cut, and the skin pulled out over the cut ends. The leg can be placed in a Thomas splint or a short plaster splint from the toes to the knee with a board placed at right angle to the leg just above the ankle, to maintain the internally rotated position which once more is emphasized as being the important factor to be observed in the after treatment. The patient is allowed to sit up in bed and can be turned on the side if care is taken not to allow any stress to be thrown upon the fracture line through adduction or external rotation. After three weeks in bed the patient is allowed to sit in a chair or to use crutches without weight bearing.

Most surgeons remove the metal fixation devices at about the sixth month following operation. If pins are used they must be removed as the sharp ends lying beneath the skin cause a painful area.

Some operators have allowed considerable freedom to the movements of the patient within a few days after operation. However, if one will but remember that the internal device is not an actual fixation device but only a metal suture and also that the healing of the fracture is not hastened or accelerated by the presence of this metal across the fracture line, then it will be appreciated that in the after treatment and care of the patient, stress and strain upon the fracture line must be avoided until healing has been completed. Stress upon metal causes pressure, pressure causes necrosis and necrosis retards healing. These are basic facts which cannot be disputed.

Weight bearing can be started at the end of eight weeks but full weight should not be sustained until fourteen to sixteen weeks have elapsed and the pain and soreness is our best guide in this respect. It is better to err on the side of too much time than too little. Early active motion in the knee is desirable and with the leg in internal rotation cannot do any harm in the fracture line.

The treatment of the old un-united fracture of the hip is a problem for discussion within itself. This condition more or less resolves into two totally different problems, one in which an attempt can be made to obtain union of the fracture and one in which the fracture is disregarded and an attempt is made to give a stable, painless hip by changing the weight bearing of the end of the distal fragment.

SUMMARY

The cervical fracture of the femur requires an absolute reduction with perfect contact of the ends of the fragments. Any type of fixation used after reduction must be efficient for that length of time required for healing.

The type of fixation will be determined by the environment and by the experience of the physician

or surgeon. Although internal fixation devices apparently give a better prognosis, the use of plaster of Paris is quite satisfactory. If internal fixation is used, the type of device is to be determined by the experience of the operator.

The most important factor in the entire care and treatment of this fracture is to maintain the internal rotation which was the essential factor in reduction.

820 CHAMBER OF COMMERCE BLDG.

EVIPAL SOLUBLE ANESTHESIA IN THE BRONCHOSCOPIC TREATMENT OF BRONCHIECTASIS*

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DARWIN M. SHORT, M.D.

Evansville

Evipal soluble, a barbituric acid derivative, has been used as an intravenous anesthetic in this country for several years. Its ease of administration, brief duration with rapid recovery, and minimal post-anesthetic effects make it highly suitable for the repeated bronchoscopic treatment of bronchiectasis.

In this series, 210 bronchoscopies were performed, using evipal soluble intravenously on 50 cases of bronchiectasis. Each patient received from one to twenty anesthetics, with an average of 5.5 treatments per case. They ranged in age from 7 to 58 years. There were no fatalities. The maximum dose was calculated according to body weight (0.06 c.c. of 10% solution per pound of body weight). Generally speaking, the satisfactory dosage for performing a bronchoscopy is 2.0 c.c. (10% solution) less than the estimated maximum dose, or about 1.5 to 2.0 c.c. more than the amount administered at the time the patient ceases to count. This quantity is sufficient for the duration of the bronchoscopy, which is completed before the patient recovers. The total duration of anesthesia with this quantity of solution averages from 10 to 20 minutes. Greater doses than the above are more depressing and the complications increase accordingly. The maximum estimated dose by body weight was never administered in any case of this series.

CONTRAINDICATIONS

Weese^{1, 2} considered the liver to be the principal detoxifying organ in the elimination of evipal soluble, because hepatectomized animals recovered more slowly from the effects of the drug than did normal or nephrectomized animals. Maloney and Hertz³ confirmed these observations. Heard⁴ states that early bronchiectasis, diabetes, hypertension, endocarditis and advanced carcinoma are compli-

cating factors. In the present series, one case (primary carcinoma of the lung) revealed at autopsy about two-fifths of the liver grossly infiltrated with metastasis, yet this patient withstood the anesthetic and recovered within the usual time. According to Coryllos and Bass,⁵ such conditions as jaundice, whatever the cause, the acute toxemias and bacteremias, or chronic and prolonged suppurations, are definite contraindications in the use of evipal soluble. Contrary to the general opinion that evipal soluble is contraindicated in cases of bronchiectasis, in this series there have been no untoward results in the diagnosis and treatment of this particular condition. Menegauz and Secheyhaye^{6, 7} collected 49 cases in which serious accidents were due to apnea, Cheyne-Stokes respiration, shock and cardiac failure. Of the 22 lethal cases, only three deaths were directly attributable to evipal soluble. According to their study, evipal soluble is contraindicated in advanced lesions of the liver, as is any anesthetic in cases of sepsis or of toxemia. Most unfavorable reactions to the drug occur immediately after injection, due either to overdosage or too rapid injection. In children the margin of safety is less than in adults.

PROCEDURE

Most writers recommend a gradual or fractional method of administration. Individual susceptibility, acquired tolerance for the drug from repeated use, and slight variation in the potency of respective batches of the drug must be considered and evaluated with each administration. It was found unnecessary and, in the authors' opinion, highly undesirable to give any adjuvant drugs prior to the administration of the evipal soluble. A fasting stomach precludes vomiting. The bite block is introduced simultaneously with the administration of the anesthetic. One-third of the solution is injected in about 10 seconds. The rate is

* From Boehne Tuberculosis Hospital.

¹ Weese, H., and Scharpf, W.: Evipan, ein neuartiges Einschlafmittel. *Deutsche med. Wchnscr.*, vol. 58, p. 1205, 1932.

² Weese, H.: Pharmakologie des intravenösen Kurzarkotikums Evipan-Natrium. *Deutsch med. Wchnschr.*, vol. 59, p. 47, 1933.

³ Maloney, A. H., and Hertz, R.: Sodium N-methyl-cyclohexenyl-methyl-barbituric acid: Hypnosis, Anesthesia and Toxicity. *J. Pharmacol. & Exper. Therap.*, vol. 54, p. 77, 1935.

⁴ Heard, K. M.: Clinical observations on use of Evipan. *Can. Med. Assn. J.*, vol. 31, p. 617, 1934.

⁵ Coryllos, P. N. and Bass, S.: Evipal anesthesia in thoracoplasties. *Anes. and Analgesia*, vol. 15, p. 66, 1936.

⁶ Menegauz, G., and Secheyhaye, L.: Anesthésie générale à l'évipan sodique. *Presse Med.*, vol. 42, p. 1036, 1934.

⁷ Ibid.: Etude critique de l'anesthésie générale à l'évipan sodique. *J. de chir. (Paris)*, vol. 44, p. 361, 1934.

then reduced about one-half. The administration is continued at the reduced rate until loss of consciousness, as indicated by cessation of counting, then an additional 1.5 to 2.0 c.c. of solution is administered. The total dosage for satisfactory bronchoscopy is usually the maximum estimated dose, minus 2.0 c.c. (± 0.5 c.c.) in amount. This does not necessarily hold true with the pre-adolescents or obese patients. Transient, generalized rigor, both in induction and recovery stages, is noted frequently. This is a constant finding in certain patients.

Menegauz and Sechehay^{6,7} consider relaxation of the masseter muscle and "the drop of the jaw" as the best criteria of the onset of sleep. The authors agree with Coryllos and Bass⁵ that relaxation of the masseter muscle is a less reliable measure for the onset of sleep than is the cessation of counting. The sleep is usually natural and immediate in onset. Kriebel⁸ reports that laryngeal reflex is always abolished. In this series of cases, with the stated dosage, the laryngeal reflex persisted though somewhat reduced. Evipal soluble depresses the reflex sufficiently for electro-coagulation of tuberculous ulceration of the larynx.

DISCUSSION

In both children and adults, following the administration of evipal soluble, a transient spasm of the glottis is commonly experienced, but this soon disappears, allowing the ready introduction of the bronchoscope. Following the introduction of the bronchoscope, there may occur a period of apnea which is disconcerting to the inexperienced operator. Artificial respiration for a few seconds, however, tends to restore the regular respiration should this occur. If further resuscitation and restorative measures are necessary, the bronchoscope should be removed and carbon dioxide administered. Coramine or metrazol facilitates restoration of the respiratory centers and aids recovery. After normal respirations are resumed, the bronchoscopic examination can be continued safely. The rate of respiration may be decreased to six per minute without undue alarm inasmuch as the minute volume is diminished only slightly. This reduced rate facilitates the use of the bronchoscope. After the bronchoscope is withdrawn, frequently a patient will become cyanotic from mucus and pus in the upper trachea and pharynx. This is readily removed with the aspirator and presents no problem. The respiratory mechanism is depressed far more than the cardio-vascular, hence it is the reliable indicator for depth of anesthesia.

In this series, it was found that the systolic blood pressure falls from 10 to 30 mm. and the diastolic pressure from 5 to 20 mm. In no instance was there major depression of the cardio-vascular mechanism. McNelis⁹ used evipal soluble in 1,000 cases of anesthesia and found very slight changes

in the blood pressure. Following the introduction of the bronchoscope, the pulse rate and blood pressure are slightly increased, probably due to manipulation of the scope and reflex stimulation on the cardio-vascular centers by the decreased respiratory rate and the accumulated carbon dioxide. These observations are based upon the usual quantity of anesthetic which was used for bronchoscopy.

Post-anesthetic nausea or vomiting did not occur in a single case of this series. A slight headache is an occasional sequela. An occasional individual will manifest the stupid "barbiturate hang-over," but these are rare. Three cases complained of a rather persistent peripheral neuritis after repeated use of the anesthetic. In this series none of the cases gave any evidence that the drug is habit forming, although a number appeared to become more tolerant to the drug and required an increase of their dosage for satisfactory anesthesia.

In the diagnosis of bronchiectasis, the authors use evipal soluble anesthesia for the introduction of lipiodol through the bronchoscope. With this method the operator is more certain of the proper introduction of the contrast oil. The x-rays are completed before recovery by supporting the patient while making the film exposure.

In the treatment of bronchiectasis, a direct bronchial lavage is given with Bledsoe-Fischer's solution.* This is followed by the instillation of specific bacteriophage according to cultures made at the time of diagnosis, or graded concentrations of the silver proteinate as may be indicated. This routine is performed speedily under evipal soluble anesthesia, without the temporary sense of suffocation that usually accompanies aspiration and instillation. The patient not only appreciates this type of anesthesia over local anesthesia, but the operator can perform his work more speedily and certainly with a greater degree of satisfaction.

SUMMARY

1. In this series, 210 bronchoscopies were performed on 50 cases of bronchiectasis, with evipal soluble as the anesthetic.

2. After the administration of evipal soluble the blood pressure, systolic and diastolic, decreases, but increases after the introduction of the bronchoscope. The pulse rate increases. The respiratory rate decreases.

3. Evipal soluble anesthesia facilitates the diagnosis and bronchoscopic treatment of bronchiectasis, with less wear and tear on the patient.

4. Contrary to previous opinion, evipal soluble is not contraindicated in the bronchoscopic treatment of bronchiectasis.

⁹ McNelis, P. J.: Evipal Anesthesia: Resume of 1,000 cases. *Anes. and Analgesia*, vol. 5, p. 199, 1936.

* Bledsoe-Fischer Solution:

Na Cl	263.7 Gms.
Ca Cl (des.)	21.0
K Cl	10.6
Aqua q. s.	1000.0

10 cc. solution diluted with 250 cc. distilled water.

⁸ Kriebel, A.: Klinische Erfahrungen mit der intravenösen Evipal-Na-Kurzarkose *Ztschr. f. Laryng. Rhin. Otol.*, vol. 24, p. 136, 1933.

BASKETBALL

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E. C. BOYD

Clinton

Basketball and basketball tournaments as played in Indiana have borne the brunt of several attacks from more or less responsible sources and personages in recent months. In an attempt to verify or refute the criticisms, the following questionnaire was sent to 108 high school principals and coaches in all sections of Indiana. Their answers and comments, together with the name of the high school they represent, are given in the following, and the final conclusions are based upon those answers and our personal experiences.

A summary statement or a statement of the findings of this questionnaire should include the following:

The schools responding to the questionnaire make up an excellent cross section of Indiana basketball.

The principals and coaches from these schools are experienced men. Few would question the integrity of these men who are working with our Indiana boys.

The answers are statements and opinions based upon years of experiences with boys and for boys.

The result is an almost unanimous vote for Indiana basketball as it is managed under the High School Athletic Association regulations. It is an almost unanimous denial of physical or moral injury to the participant by men who are

RESULTS FROM BASKETBALL QUESTIONNAIRE
Sent to Representative Indiana Schools
124 Principals and Coaches Replied

Questions	Yes	All	90%-100%	50%-90%	25%-50%	Below 5%	Small or Few	Probable	Possible	With Proper Coaching	Doubtful	None	No	Opposite	No Answer
1. Does participation in basketball injure or retard physical development?-----	3												121		
a. What % develop poor health?-----				12	25							85			12
b. What % develop better health?-----		50	20	15		14									25
2. Does participation injure mental health?-----													120		4
a. Improve mental health?-----	95								13						14
b. Improve mental attitude?-----	114								2				5		5
c. Injure mental attitude?-----	7							3					101		13
3. What % have developed heart disease?-----							19					100			5
4. Is basketball more apt to do harm than other athletic games?-----	19							3			3		90		9
5. Do you know of fatal results chargeable to basketball?-----											2	115			7
a. What per cent?-----															
b. From other causes?-----	8											100			16
6. Is the supervised participant under greater strain than enthusiastic fans?-----	15							7					94		10
7. Have the champions that you have had or have known been: a. Injured physically?-----	3												100		
b. Injured mentally?-----													75		
c. Improved?-----	102														
8. Does ability to play basketball increase chances for higher education?-----	100														24
9. Does basketball help to keep boys in school?-----	115										1				8
a. Reduce adolescent delinquency in boys?-----	105												12		
b. Increase delinquency?-----	7														
10. Does athletic participation raise scholastic rating?-----	85								11				16		12
11. In comparison with other pupils, are participants rating better than average?-----	55										24			9	36
12. Does athletics develop proper school loyalty?-----	100														24
a. Proper sportsmanship?-----	105									60			4		
b. Proper character?-----	105								7	60					
c. Increase parent interest?-----	110												5		9
d. Improve parent interest?-----	95								6				2		20
13. Do athletics improve inter-school relations?-----	100								9				7		8
14. Have you noted special cases over period of years?-----	95										4		4		21
15. Is basketball activity the only physical-ed. program?-----	5													119	
16. What % of your boys take part in directed athletics?-----		8		59	33	12									12
17. Do you use state method of certification only?-----	100														24
18. Are the present objections to basketball and b.b. tournaments justified?-----	12							25					85		
19. Are the objections based on real knowledge of the situation?-----	11								16				85		12

not only in daily contact with the participants, but who have been participants themselves.

Basketball in Indiana is played as the High School Athletic Association intends that it shall be played; it is not harmful to the boy either physically, mentally, or morally; there is no tangible evidence that it is any more harmful than other athletic activities; attacks are founded upon lack of knowledge and experience as an athlete or with athletes; there are long term evidences as well as current evidences of benefits physically, mentally, and morally from basketball, and if properly coached and supervised, the benefits will be even more marked. Basketball in Indiana is a sane and sound activity, regardless of criticism.

A few of the comments made by principals and coaches will add meaning to the above statements:

"The principal and coach make basketball a good or bad influence."

"Problem students have often been reached by athletics."

"Just place our high school boys along side non-high school boys or non-athletic boys and note the difference."

"We need wholesome enjoyment for our youth."

"It is better to have directed activity than to just catch as catch can."

"We need principals with 'guts' to keep their program sane."

"The critics do not know of the boys who have been greatly helped."

"Local control is needed more than curtailment."

"Basketball is being judged by the exceptional cases or places where it is over-emphasized."

"The athlete has a much better chance in life."

"The critics are more or less out of step with today—usually have no boys and have never been athletes."

"Basketball may be the basis of evil if improperly directed just as money is an evil if improperly handled."

"Objections are usually merely personal feelings, or the statement of those who want a good story."

"The good derived from our basketball far outnumber the bad. The bad is so small that it has little significance in comparison."

There are 803 high schools in Indiana whose students play basketball. These high schools have certified 25,000 boys which means that 25,000 boys have been properly examined for physical defects and pronounced physically fit. There are many others who have been certified for football and other athletic activities.

There are possibly thirty colleges and accredited high institutions in Indiana. There are many more in states adjacent to Indiana where Indiana basketball players go. In fact, Indiana basketball players are enrolled in most of the major schools of the country. These boys have been helped either directly or indirectly in finance for their college

education. It would probably be safe to estimate that twenty-five per cent of the athletes who graduate each year and enter college do so because of their interest in athletics and because they were encouraged to enter by offers of ways and means of defraying expenses in return for their services on the team.

The following schools answered basketball questionnaires: Anderson, Attica, Bloomfield, Bloomington, Bainbridge, Brazil, Bedford, Boswell, Cambridge City (Lincoln High School), Cayuga, Cloverdale, Crawfordsville, Crown Point, Dana, Evansville (Reitz High School), Earl Park, Fairbanks, Frankfort, Fort Wayne (South Side High School), Greencastle, Hartford City, Hillsboro, Huntington, Kingman, Kendallville, Lafayette (Jefferson High School), LaPorte, Ligonier, Linden, Linton, Logansport, Loogootee, Madison, Martinsville, Mecca, Michigan City, Montezuma, Morgantown, Muncie (Harrison Township High School), Newcastle, Nappanee, Newport, New Albany, North Manchester, Otter Creek, Oakland, Odon, Perrysville, Plainville, Plymouth, Rensselaer, Rosedale, Rushville, Shelbyville, South Bend (Washington High School), Spencer, Sullivan, Terre Haute (Indiana State Laboratory High School and Wiley High School), Tipton, West Terre Haute (Concannon High School), Worthington.

Basketball is and should be only incidental to a high school education, but it is also one of the vital unifying forces of a well-rounded secondary school training that leads upward toward the realization of the fullness of life of adolescent school youth by giving outlet to his surplus energy through capable direction.

Our conclusion in regard to the criticisms of these directors, both state and local, and of the student body, is as follows when figured in percentages:

1. 87% are without any foundation in fact.
2. 10% have but little or no foundation in fact.
3. 3% have real foundation in fact.

Personal experiences since 1895, as a student playing on one of the first Teachers' College teams, later as coach, and during the past twenty-five years in making physical examinations and noting the mental and moral effect, have convinced us that the game is wholesome. Teams from the local high school have been frequent contestants at the state basketball tournaments. The earliest one in which they participated was held in the old Y. M. C. A. gymnasium in Indianapolis. On the opening round there were present 23 spectators with seating room for 25 more.

In all the physical examinations we have made of tournament contestants and other players, we never have found a single student who, in our opinion, was ever injured physically or mentally. The examples are many where the boys have been improved physically and broadened mentally and morally.

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LEUKORRHEA AND OFFICE PRACTICE OF GYNECOLOGY*

LAMAN A. GRAY, M.D.

Louisville, Ky.

Leukorrhea or white discharge arises from either the vagina or cervix, and this discussion will deal with the diseases of these parts which produce a discharge with especial reference to treatment.

Leukorrhea in young girls is perhaps first to be considered. This is produced by vaginitis or vulvovaginitis, frequently caused by the gonococcus. The vaginal mucous membrane of the young girl before puberty is quite thin, consisting of only a few layers of squamous epithelial cells. The reaction of the secretions is usually alkaline. These two facts are quite conducive to inflammation, as the thin mucosa may easily give the gonococcus a foothold producing small ulcerations, while the alkaline secretions are conducive to rapid growth of the gonococcus. The infection may come from contaminated hands, clothing, toilet seats, and the like, a quite different susceptibility from that of the adult where genital infection probably may never occur in this manner. The disease occurs particularly among Negro girls, but also among the white where contamination is likely. Gonorrheal contamination may occur in the best of families and is frequently given to young girls by nurse maids. For many years treatment has been most unsatisfactory, a wide variety of antiseptics being used. These drugs brought infrequent success, often requiring two or three months of treatment, even then sometimes followed by relapse. A few years ago Lewis of Hartford, Connecticut, conceived the brilliant idea that the reason adults did not have gonorrheal vaginitis was because the vaginal epithelium was so very much thicker. Further he reasoned that since this thickening occurred with puberty and the presence of estrone in the blood and urine, the latter might be responsible. He found that giving estrone hypodermatically did cause marked thickening of the vaginal mucous membrane with ablation of the vaginitis. Later he found that the alkaline secretions were changed to acid secretions as found in the adult. Some other observers have used only acidification of the vagina as treatment with some success. However, the thickening method seems more logical to me. TeLinde of Baltimore has had even better results from using vaginal suppositories of estrone. This method consists of using estrone suppositories (500 rat units) each night for two weeks; in some cases it is repeated for another week.

In many cases of vaginitis in children no gonococci are found. Such cases are generally classified as nonspecific since varying organisms are

present. It is conceivable that almost any organism may cause vaginitis if a slight injury of unknown cause produces an abrasion of the thin mucosa, and yet our classification of "non-specific" is one of ignorance. Such cases may be treated with such mild antiseptics as argyrol, mercurochrome, merthiolate, gentian violet, etc. Estrone suppositories are also of value in these cases.

Rarely thrush, diphtheria, or the pneumococcus explain the etiology of vaginitis. The diagnosis must rest with bacteriologic study, and treatment with antitoxins or sera may be used.

VAGINITIS IN THE ADULT

Vaginitis in the adult may be subdivided into several types, including *Trichomonas vaginalis*, fungus, senile, non-specific and secondary to cervicitis. One of the most common types of vaginitis in the adult is due to the *Trichomonas*. This oval shaped flagellated parasite is about the size of four or five white blood cells and is quite motile, swimming about briskly. It is found by taking up some of the discharge in physiologically normal saline and placing on a slide with cover-slip. The diagnosis is made only when the motile organism is seen swimming about among the pus cells. When dead and immotile, the organism cannot be distinguished from an epithelial cell. The discharge is white, or creamy yellow, and usually profuse. An intense itching and burning sensation may be present in the vagina. The vaginal wall shows varying degrees of redness, may appear beefy red. The cervix is frequently reddened externally and may show brilliant red spots, known as the "strawberry cervix." This type of vaginitis is very difficult to cure, as evidenced by the myriad treatments mentioned in the literature. At one time green soap scrubs followed by bichloride of mercury were popular, although very painful to the patient. Many kinds of powders and suppositories have been used. Twenty-five per cent salt solution as a douche at one time was thought to be a cure, but its use frequently is followed by recurrence. Each commercial company has its own cure. The latest vogue seems to be silver picrate followed by suppositories. While the reports are excellent, it remains to be seen just how effective this treatment is. It is important to remember that the infection is prone to recur, particularly after the menstrual periods.

Vaginitis caused by fungi is commonly found associated with diabetes. Symptoms are itching and burning sensations. Needless to say, every patient complaining of pruritis, particularly pruritis vulvae, should have the urine examined for sugar. Hesselstine has shown that in practically

* Delivered before the Gibson County Medical Society, Princeton, April 11, 1938.

every case of diabetic vaginitis, fungi may be cultured. Just how often fungus infections occur exclusive of diabetes is a matter of conjecture.

Such organisms as mycelia or yeast buds may be seen in stains or under a solution of strong sodium hydroxide or potassium hydroxide. Preferable is a culture on Sabouraud's media. The classification of yeasts and fungi, however, is a difficult matter, and one to be undertaken by the expert bacteriologist. One very important point about this condition is that it may be alleviated by the application of gentian violet in one or two per cent aqueous solutions. It is very important for cure that the diabetes should be controlled, as the excess sugar in the vaginal secretions seems to be the cause of the organism flourishing in the vagina.

Vaginitis occurring in the woman after the menopause is very common. The irritation produced makes the nervous symptoms of the menopause even worse. The underlying pathology is the great thinning of the vaginal mucous membrane due to lack of estrone with resultant small breaks and local infections. This is very similar to the vaginitis of children. It is a mystery to me why gonorrheal vaginitis is not common in women after the menopause since the physiologic conditions are apparently the same. The organisms responsible are various cocci and bacilli. While various douches and suppositories may be used, estrogenic therapy seems most logical and gives excellent results. The vaginitis, however, may recur when the therapy is stopped.

There are some cases of vaginitis in the adult which are labeled "non-specific," meaning that the real cause is not known. A number of types of organisms may be recovered from the vagina. It is possible that some of these cases are allergic in origin, although this is largely theory. It is known that occasionally the vagina is sensitive to the condom or contraceptive diaphragm, which may produce a very irritating vaginitis. In general, however, this field of non-specific vaginitis is still wide open, and undoubtedly many interesting causes of vaginitis will be found in the next few years.

A discharge from the cervix may cause a slight to moderate irritating vaginitis which is secondary in origin. Obviously in these cases the cervix must be treated primarily.

More often than vaginitis, a discharge is produced from inflammation of the cervix. In all the types of vaginitis above described, there may be some involvement of the cervix, although usually it is the external part of the cervix.

In virgin or nulliparous women, there are many cases of a reddened or everted cervix associated with moderate discharge. No *Trichomonas*, fungi, or gonococci may be found, and yet there is the cervicitis. Smears show many gram-positive and gram-negative cocci and bacilli. In other words, the cause is not known. In many cases it does seem to follow the first intercourse, and may be

associated with sensitivity to rubber or slight injury. Usually in these cases antiseptic douches and local applications of silver nitrate to the cervix seem to produce a cure. The cause of this cervicitis is certainly a great puzzle to me.

Gonorrheal cervicitis, on the other hand, is certainly a very definite entity. Gonorrhea in the adult has a tendency to begin in the Skene's glands of the urethra, producing pain and burning on urination and in Bartholin's glands in the labia majora producing pain from local abscess formation. The infection then skips the vagina to land in the cervix, producing a profuse white or yellowish mucoid discharge. Cervicitis itself causes no pain, as the cervix is relatively insensitive. The cocci extend into the small tubular glands of the cervix and set up a marked inflammation. The ducts of the glands may be blocked, forming minute abscess which after absorption of the pus leave small Nabothian follicle cysts. The infection is acute for two or three weeks, and may extend through the uterus to the tubes, skipping the endometrium. After six weeks the infection becomes subacute or chronic, although the organisms may be found one year later in the cervix. The diagnosis is made by smear or culture. In the smear stained by Gram's method, the organisms appear as gram-negative, biscuit-shaped diplococci which are intracellular.

In the treatment some believe that douches should not be given in early cervicitis, as they may spread the infection into the tubes. However, it has been my experience that douches have little or no effect upon the development of salpingitis. Potassium permanganate 1:8,000 is used by many as a simple antiseptic douche. The cervix is not treated by local applications until after the disease becomes subacute or chronic. After a period of six weeks, mercurochrome, merthiolate, silver nitrate, and other drugs may be applied. In the acute stage, bed rest, forced fluids, and good diet are of great help in preventing complications. Sulfanilamide has been recommended by many, but in our experience it is of very questionable value, and may prove dangerous to the patient. In the chronic stage, particularly after no gonococci may be demonstrated, the cervix should be cauterized with radial strokes of the actual cautery. If the infection is slight, cauterization may be performed in the office, but as a rule it is better to put the patient to sleep, thoroughly dilate the cervix, and then cauterize high up in the canal. Two and four weeks later the cervix should again be dilated to prevent stenosis.

The most common type of cervicitis results from secondary infection in lacerations from childbirth. Practically every woman who has borne children has lacerations of the cervix, of slight or marked degree. Infections in these tears may apparently persist throughout the life of the individual. This usually produces an annoying discharge, may act

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AUGUST, 1938

Editorials

THE NATIONAL HEALTH CONFERENCE

The National Health Conference held at Washington, D.C., July 18-20, was every bit as significant and far-reaching in its proposals affecting health services and the future practice of medicine as was forecast when the invitation came from Miss Josephine Roche and was accepted by the House of Delegates at San Francisco during the A.M.A. session. In fact, the three days' conference has been hailed as a "medical Battle of Gettysburg" but perhaps it would better be termed the bombardment of Fort Sumter for it is probably just the start of the war as it is a long, rough road before whatever systems of health insurance and socialized medicine as were proposed at Washington during the July heat go through the legislative mill. Proposals at July conferences usually are pretty well tamed down and streamlined when Congress gets through with them. But there is no denying that right now there is a tremendous force and impetus behind them.

Sensing the potential eventualities of the conference, the Executive Committee of the Indiana State Medical Association sent Dr. Herman Baker, president of the Indiana State Medical Association, and the executive secretary to Washington to attend the conference as observers. Other state medical associations represented at the meeting by observers were Texas and Wisconsin. Dr. Verne Harvey, secretary of the Indiana State Board of Health, and Edgar Blake, of the Indiana Hospital Association, were other observers from Indiana.

A check-up on the delegates showed that of the 167 listed as attending the conference, 106 repre-

sented groups who openly advocate sickness insurance while 40 represented groups believing in the maintenance of the traditional principles of the practice of medicine. The position of 21 delegates is estimated as being doubtful. It is significant that the 40 delegates listed as being opposed to socialized medicine were largely physicians, dentists, and nurses.

Almost without exception, representatives of labor, farm, social, and governmental groups spoke wholeheartedly and often heatedly in favor of the extension of governmental health services and advocated what will amount, in the long run, to some form of the socialization of medicine. A number of doctors also favored this viewpoint.

On the first day of the conference, Dr. Hugh Cabot, listed in the program as a "consulting surgeon, Mayo Clinic," made a particularly critical talk condemning the American Medical Association and belittling the efforts and ability of members of the medical profession of this country. He was answered in sincere, forceful talks by Dr. Arthur McCormick, health commissioner of Kentucky, and Dr. Olin West of the American Medical Association. It was most unfortunate that Dr. Cabot's talk, and statements in discussion made by various members of the Committee of 430, which was abundantly represented at the conference, made it appear that a severe cleavage exists in the ranks of the medical profession.

The program as proposed to the conference would involve the expenditure of \$850,000,000 for preventive and health services, \$750,000,000 for hospital construction of new hospitals and \$200,000,000 for supplementary services for the care of the needy, making a total approaching two billion dollars.

Details of the meeting have been carried in *The Journal of the American Medical Association* which should be studied by every physician, for the results of this conference may have more effect directly upon medical practice and upon the work of each physician than anything that has happened to date.

HEALTH HAZARDS AND THE HIRE OF THE WORKINGMAN

The health of the working man as a matter of interest to his employer has had much more emphasis in recent times although it is decidedly not a new thought. The philosophy that employment for hire carries with it the obligation for additional compensation and care in the event of injury or impairment of health as a result of that employment is of more recent date.

Professor Bernardo Ramazzini of the University of Padua is given credit for preparing a scientific basis for consideration of industrial hygiene in his treatise on diseases of occupation, "De Morbis Artificum Diatriba," published in 1700. Dr. Harry

Mock, who instituted routine free examinations of employees for a Chicago firm in 1909, states that the first physical examinations of employees were reported by Dr. Frank Fulton of Providence, Rhode Island, in 1906. There seems not to have been any organized activity along those lines until the inauguration of a section on industrial hygiene by the American Public Health Association in 1914. In 1915 the United States Public Health Service organized a division of industrial hygiene and sanitation, and The National Safety Council established a section on health service. In the same year the American Medical Association created a section on hygiene and preventive medicine.

The American Association of Industrial Physicians and Surgeons, the Association of Railway Surgeons, and other organizations, offered opportunity for contact between medical men, specializing in or having interest in certain phases of medical and surgical service in industry. A number of state departments of health established bureaus of industrial hygiene. Of these, the newly created Bureau of Industrial Hygiene of the Indiana State Board of Health, now making a survey of occupational disease in Indiana, is a very promising example. However, it has long been evident that industrial development and newer social thought present increasing problems in industrial hygiene. Recognizing this need, the American Medical Association, in 1937, created a Council on Industrial Health, to coordinate research, establish standards, assist in the interpretation of medicolegal problems, provide a clearing house for information, and stimulate interest in obtaining improved conditions through local medical organizations. Consistent with these advances, the Indiana State Medical Association takes the lead in making industrial health a part of its outstanding program on disease prevention. Industry in recent years has been striving for decentralization of manufacturing activities, and there is scarcely any community in the state which does not have some industrial plant problems. The matter, therefore, becomes of interest to all the component county medical societies and to the profession of the whole state.

Thus runs the chronicle, but the complexities of occupational disease grow even more rapidly. State legislatures within the past two years have named a considerable number of conditions as compensable industrial diseases. Some of these conditions have not been scientifically defined. Most of them require much more study, and the extent to which the average industrial exposures constitute a hazard and contribute to their etiology will require further observation.

Judicial bodies, lawyers, employers, and employees, need guidance. Finally, physicians who must protect the health of employees, treat them when ill or injured, and eventually give a fair appraisal of their disabilities, require training and access to the results of research not practicable in each industrial plant. Greater opportunities for

education in the specialty are needed. Even the nomenclature is haphazard and lacking in definition. Some new terms and more definite usage are indicated. Dr. L. D. Bristol, in 1937, reported that only thirteen out of eighty-five medical and public health schools in the United States and Canada give separate courses in industrial hygiene or industrial medicine.

The quality and quantity of medical services provided in industry is a responsibility of state and county medical associations, just as is the character of medical service provided for the public outside of industry. Hospitals share in the responsibility of care of those suffering from the effects of occupational disease and must awaken to the needs of providing facilities and trained personnel for proper care.

Medical services performed in industrial medical departments should be surveyed to determine the proper relationship between industrial medical departments and the private practice of medicine. Cooperation between the physician and the engineer are necessary in the industrial health program. Employer management needs guidance, and the insurer must be considered in the care of occupational disease.

In all of these matters the physician must take a leading part. Upon his advice measures may be instituted to safeguard industrial health. His is the responsibility to provide a fair appraisal of occupational diseases in order that they may be dealt with scientifically and in reasonableness and justice.

The Indiana State Medical Association and its officers are to be congratulated for this advanced position in promoting interest in industrial health.

"TEMPORARY INSANITY"

The subject of "temporary insanity" is once again brought to the public mind through several press comments on the testimony of an Indiana physician, Dr. Robert V. Hoffman, of South Bend, during a recent court case. For some years the feeling has been that Indiana laws are not just what they might be in this regard. The statements of Dr. Hoffman are quite in accord with this idea. This particular case was a murder trial, and it seems that practically all defenses of "temporary insanity" are in cases of that sort. The statement presented in court by Dr. Hoffman was prepared on behalf of the St. Joseph County Medical Society and reflected a certain dignity that is not usually accorded medical expert testimony. The statement contains so much common sense and is so in line with the opinions of most medical men that we quote liberally:

"The frequency of temporary insanity as a defense by persons tried for crime has given rise to the public impression that this excuse is an invention of physicians or is approved by them.

The exact opposite is the case. Physicians did not invent it. Physicians think little of its merits. Physicians would like to see it abolished from the courts.

"Indiana's physicians are compelled to work with this unsatisfactory situation because the ruling of the state's courts leave them no choice in the matter. *Our laws define the type of yardstick with which the accused must be measured, and the physician merely records for the court the resulting dimensions.* (Italics ours—Editor.) The jury, with the court's help, decides the presence or absence of the alleged 'temporary insanity.'

"Its birth and development are interesting. It came into legal being in 1800 when Hadfield was exonerated for shooting at the king in Drury Lane Theater. The British court held that Hadfield's delusions excused his guilt.

"In 1843 the house of lords asked the trial judges to clear up the situation further. They then added the modification that 'the accused must be able to know the difference between right and wrong at the time of the act.' And finally the courts of practically every state in the United States have added a third qualification, excusing guilt upon the grounds of 'irresistible or uncontrollable impulses,' presumably a phase of an acute mental breakdown.

"Thus these three court-devised qualifications constitute legal temporary insanity, except in the definitely and continuously insane. Every physician would welcome a legal revision of such an undesirable situation."

Dr. Hoffman is eminently correct when he says that physicians would like to see this sort of testimony abolished from courts. There is no place for such testimony as at present obtained. The lay public has come to believe that medical testimony is a purchasable commodity and we too often are inclined to agree with that notion. We favor a medical commission in all court cases, whether it be in cases of this sort or those involving suits for damages to one's person.

Reverting to the question of temporary insanity, we may also observe that for many years we have held the belief that all murders are committed during a temporary mental aberration; there are few instances in which a killer slays for the lust of killing. That, however, does not justify a homicide. Full penalties should be exacted as a punishment for these crimes and the man of medicine should take the witness stand in such cases with the thoughts in mind that apparently were Dr. Hoffman's when he presented this statement.

INDIANA IS HONORED

At the San Francisco session of the American Medical Association, the Indiana State Medical Association received a signal honor, that of a "special citation" for an exhibit that was a part

of the scientific exhibit section. THE JOURNAL for July carried a picture of this exhibit and several comments concerning it, mentioning the fact that it was a distinct hit at the meeting. Hoosier doctors who attended reported that the exhibit attracted universal attention and that it was the most talked about display in that section. As one man put it, "Two Birds with One Stone" became the theme song of the convention. The A.M.A. House of Delegates officially adopted the Indiana Plan and suggested that it be generously used by the various state organizations of the country.

We believe we may be pardoned for the inordinate pride we have in this great honor. We are familiar with the early history of the program, the small seed sown when President Baker announced that his program for 1938 would be one of disease control. From this came the suggestion that the Topic-of-the-Month be featured by THE JOURNAL. The two plans went hand in hand, and from letters received, both from Indiana and elsewhere over the country, it is apparent that the plan is clicking like a well-oiled piece of machinery. The Indiana Plan will continue to be heard from, and we predict that numerous state societies will adopt it as a whole while others will make such modifications as are required to adapt it to local conditions. The whole scheme will do much to place medicine in its proper light before the reading and understanding laity.

There is a reason behind this signal success. The project was not the brain child of one man, though the idea did have its inception in the brain of an individual, that of Dr. Frank M. Gastineau, a member of the Bureau of Publicity. Actually, the Indiana State Medical Association, as it is officered and managed today, is an organization in which cooperation is the by-word. Departmental activities are so correlated that any worthy, workable plan can be and is put into operation in short order. Never in the history of the Association has there been such a connected chain of efficiency as there is at the present time. An idea is suggested and at once it is dissected and analyzed; if it is found to have merit, it is referred to the proper committee or group and, if adopted, plans immediately are made to put it into operation. The whole scheme of Indiana State Medical Association efficiency, then, revolves about a single word: cooperation. Our success indicates in some measure just what can be done when the various groups within our organization are working together. This same thing has made THE JOURNAL one of the outstanding medical magazines in the country (and this is said with all modesty), and has made it an integral part of the working machinery of our state organization. No single individual could accomplish the things we have done during the past few years; no single physician has the time to do the things necessary to bring about the results that are ours; it is only by a

coordinated effort that such things are done the way we do them in Indiana.

THE JOURNAL is proud to have played a part in the program that has brought to our State Association such great honor. THE JOURNAL looks forward to other and greater accomplishments by our group of interested, active members. Many things remain to be done, and they will be done, and in the doing there will be the same get-together-and-put-it-over spirit that brooks no interference.

DOG DAYS

The subject of this editorial was brought to our attention the other day by a medical friend of more than forty years of service in the healing arts. He was speaking of legislative measures in general when he commented upon the fact that dog taxes were unfairly used, that the owner of live stock or chickens destroyed by dogs was recompensed by the state, while the parents of a child bitten by a dog did not have such financial recourse. He felt that the law should be amended to the effect that the cost of treatment of dog bites should be paid from dog tax moneys. We are rather inclined to agree with him in this.

The dog question long has been one of contention; one group is bitterly opposed to any form of taxation of these domestic pets, while the other group feels that too much leniency is shown in controlling the dog situation. This latter group has in its favor an increasing number of persons attacked by dogs, even though a recently enacted state law would seem to have tightened the situation in no small degree. Until recently it was the custom for the local community to determine just what should be done about dogs, the township assessor collecting (or supposed to collect) the legal fee. Many of our cities added a dog tax but it remained for a recent session of our general assembly to make a state levy on these household pets. The law provides that all such animals shall be kept in restraint, state tag or no; the quarantine measures may be instituted when it is deemed necessary, and local communities shall have the power to make various regulations, etc.

With all these changes the fact is clear that cases of dog bites are increasing at a rapid pace; some have blamed it on our present economic state, claiming that the stray dog population is increased because their former owners cannot provide for them. Whatever be the cause, we need a more rigid enforcement of our present laws on the subject. The dog owner who keeps his animals well in hand has the right to expect this of other owners. Certain nations have found it possible to practically eliminate rabies, notably England. If you are in doubt as to this we would suggest that you look up the law relative to taking dogs into that country. Many other nations have recognized the gravity of the situation and several of our

states have regulations that might well be studied by other states.

We yield to no man in our admiration of dogs; we have had a dog or two about us since childhood, back in the Wild Cat days; as we write this, there are two terriers piled up about our feet, where they spend most of their time when we are at home. The boy who is brought up without the companionship of a dog misses a lot in his early life, but we do feel that the dog question is a long way from being settled. As we have intimated, an enforcement of our present laws would go far toward correcting many of the present complaints against our canine friends; this, together with some amendment providing for the payment of medical care in cases of dog bite would be a step in the proper direction.

Editorial Notes

The Constitution and By-Laws of the Indiana State Medical Association, revised and recodified, has been published and copies are available for any members who want them. Write to the headquarters office, 1021 Hume Mansur Building, Indianapolis, and ask for your copy. Copies already have been sent to all county medical society secretaries, to councilors, and to all officers of the Association.

In a compilation of cases of occupational diseases from the Ohio Department of Health over a ten year period (1928-1937, inclusive), a total of 12,931 compensable cases were reported, 8,730 or 67.5 per cent of which were dermatitis; next in frequency was lead poisoning which accounted for 1,464 cases or 11.3 per cent, followed closely by tenosynovitis (hand) with 1,452 cases or 11.2 per cent. No case of glanders, manganese dioxide poisoning or radium poisoning was reported during the entire ten year period.

The Laporte County Medical Society has adopted the plan of having a member review the current number of THE JOURNAL at each meeting, giving fifteen to thirty minutes time for this part of the program. These folk seem determined that their members shall read our magazine, in one fashion or another!

In the compensable cases of dermatitis reported to the Ohio Bureau of Occupational Diseases over a period of ten years, leading causes of the dermatitis were given as oil, greases and cutting compounds, specified chemicals, cleaning compounds, plants, vegetables, woods, specified irritants, petro-

leum distillates, rubber and compounds, paints, varnishes and thinners, stains, dyes and dyed goods, dusts, plating and cyanide solutions, lime and cement, bakelite and other synthetic resins, brass, infections, bakers and confectioners goods, ink and products used by printers, lithographers, etc., leather, tobacco, paper, and gas.

Some time ago comment was made upon the increasing divorce rate in this country. Recently we read an article showing that the United States led all other countries in this regard, that our rate was 164 divorces to each 1,000 marriages. Our nearest competitor was Austria, with a rate of 107, while England held the lowest position with only 12.

The *New Harmony Register*, under date of June 15, 1872 (66 years ago) has the following comment: "Congress adjourned last Monday evening, for which good blessing all good citizens are devoutly thankful." It seems rather odd that the Congress of 1938 should have adjourned on about the same date and that the populace feels much as did the editor of the *New Harmony* weekly so many years ago!

The same issue of this paper carried the story that Thomas A. Hendricks had been nominated for Governor of Indiana at a convention held in Indianapolis. This man was a grand-uncle of "our Tom," the Blonde Senator.

Announcement is made that a sum amounting to almost \$60,000 has been allotted under a Federal grant to the Indiana State Board of Health, to be used in the furtherance of the anti-venereal disease campaign. Dr. Verne K. Harvey, chief health officer of the state, is said to be planning to use this money both in the treatment of the venereal diseases and also in a preventive campaign. This plan works in very nicely with the program of the Indiana State Medical Association which is definitely pledged to the anti-venereal disease program of the United States Public Health Service and to a state-wide plan of preventive medicine.

The *Virginia Medical Monthly* is our authority for the statement that group hospital insurance is on the increase. In that state some 40,000 persons are participating in the plan, 18,000 of whom are in Richmond. In that city 100 hospital beds are kept occupied every day by policy holders. The plan has been in operation in that state for some three years, the present cost being eighty-five cents per month for an individual, two dollars per month

for a family and its dependent minors. Incidentally, it is noted that each year the contract is in force adds to the number of allowable hospital days per year; starting with twenty-one days during the first year of the contract; the fifth year of a continuous contract allows thirty-five hospital days in any one year.

With the vacation season at its height, it is well to remind your clientele of the dangers of over-exposure to the rays of Old Sol. Lots of folk have the notion that to come home from a vacation sans the to-be-expected sun tan is quite improper and the length to which these addicts will go to acquire that desired shade of brown is astounding. As a matter of fact, sun tan in moderate dosage is quite alright, but when it comes to lolling about a beach, day after day, with the hot sun pouring down on one's anatomy in spots that for fifty weeks have been more or less covered, it becomes a different story; in fact, it becomes a potential source of danger. Moderation should be advised, in the same degree that we advise carefulness as to diet and vacation water supplies.

The osteopaths have succeeded in interesting some members of the Congress in a measure that would place them on practically the same basis as medical practitioners in the matter of treatment of Federal employees under the Compensation Act. This bill is known as the Drew bill and, if passed, would be the first break in the present effectual barrier between the regular practice of medicine and the cultists. The reference committee, however, recommended that osteopathic treatment, under the Drew act, be limited in each state to services permitted by state laws. Of course the Congress has adjourned (thanks be!) but it is likely that the Drew measure will again come before that body and it will be well to keep it in mind should you have occasion to talk with your congressman.

One of the principal objections raised to the survey of medical care by organized medicine, a project sponsored by the American Medical Association, is that the average physician keeps no records that will permit an intelligent and informative report as to the amount of charity work he is doing. In several state medical magazines we find comment to this effect, each of them suggesting the plan proposed by our Vigo County Medical Society, that all members make a record of such work over a period of a few months, then complete the report form. We have casually asked a number of physicians as to what per cent of their work might be termed as charity and the invariable answer is "I would *guess* that it is about such a per cent." A survey of this nature

should not be made on guesswork; it is too important a matter to guess about; if the information is to be of any value it must be based on actual figures.

The editor of the *Virginia Medical Monthly* has the temerity to have his say about the increasing custom of showing slides at medical meetings. He voices the opinions of many attendants at medical meetings when he says the thing is grossly overdone. Especially does he decry the growing practice of the speaker trying to synchronize his paper with the showing of the picture; the attention of the audience is very much distracted by this practice. Slides add materially to a talk on a medical subject, in a general way, but we confess that we have sat near speakers who showed large groups of slides many of which might well have been omitted. In general, we agree with Editor Blanton and congratulate him for his courage in opening the subject.

Sixty days hence we will be wending our ways to the capital city for our annual convention. Judging from the numerous inquiries pouring in for data as to what will be going on, it looks like a banner year for us. There are some members of our Association who never have attended an annual convention, and it is to these that we make the special plea that they form a new habit. One thing of prime importance is the reservation of quarters, and this matter should be attended to right now in order that you may be sure of getting the kind of accommodations that you want. There is nothing like being physically comfortable when you are away from home. Write to your favorite hotel now. The meeting will be held in the Murat Temple where the conveniences are such that everything will be under one roof. Mark your calendar right now and begin to plan for a profitable visit to Indianapolis, October 4, 5, and 6.

In the 195 cases of plumbism reported to the Ohio Department of Health's Bureau of Occupational Diseases over a ten year period, 24 were females, 23 of whom were decorating glassware and 1 was working in a printing establishment. The occupations of those incurring lead poisoning were auto body finishers, glass workers, metal finishers, painters, paint handlers and decorators, storage battery workers, burners, welders and cutters, printers, lithographers, electrotipers, metal workers including sheet metal, stamped and enameled ware, foundry workers (non-ferrous), lead shakers, rubber workers, cleaners, janitors, grinders, sanders, buffers and polishers, plumbers, clay products workers, refinery workers, florists, farmers, gardeners, inspectors, foremen, superintendents, drivers, retailers (gasoline and oil), lead burners, blacksmiths, heat treaters, etc.

A West Virginia court has held that a hospital may not lawfully make contracts to supply medical services. In view of the numerous hospitals over the country that have one form or another of "hospital insurance," this decision is a most reassuring one. However, several hospital heads with whom we have discussed the matter are not at all in accord with any plan of insurance that includes medical care; they are a unit in the belief that hospital care and medical care are separate entities and should be kept so. In an interview with the head of a large hospital in Wichita, Kansas, recently, he stated that when his institution first adopted the plan, they subscribed to a contract with a commercial firm supplying such contracts but found it very unsatisfactory. Later on they took over the matter on their own. For the first year or two the yearly balance of the plan required red ink, but now they are breaking even on their contracts.

We recently visited a county medical society that has an unusual attendance record and one whose meetings are of the up and at 'em sort. A little inquiry elicited several interesting bits of information, leading to the answer as to why this group is so enterprising. For one thing, they have an alert, active secretary; their president believes in conducting the business section of the meeting with the utmost dispatch, yet allows ample time for the discussion of matters pertaining to the society. Another reason for their success is that they "carry the meetings to the doctors"; that is, the meetings are held at all points in the county. Then, too, dinner meetings are the rule: they find that a dinner preceding the meeting establishes a feeling of personal satisfaction that can be supplied in no other way. Again, the meetings are concluded at a reasonable time, which makes for a better attendance. The average physician seriously objects to sitting through a meeting that carries on until well toward midnight.

The Children's Division of the Indiana Department of Public Welfare is charged with the responsibility of licensing maternity hospitals and maternity wards of general hospitals. This happens to be both a medical and a social problem, though the interest of the Children's Division is primarily the social problem of protection and safeguards to the unmarried mother, to the child born out of wedlock and to the child who is cared for away from his own people. In some communities it is found that maternity homes and small nursing homes are operating without a license, and it is believed that this condition exists because the persons concerned are not aware that a license is necessary. If you have occasion to work in any such institutions or to visit them occasionally, ask the proprietor about his license, and urge the

immediate procurement of proper license if it has not already been obtained. The Children's Division is willing and anxious to cooperate with the medical profession in this matter.

The report of the Indianapolis Medical and Dental Bureau, recently released, indicates that this organization has a definite place in the health problems of the capital city. During the past year the Bureau handled some 1,278 cases, 1,093 of which were hospital patients. The Bureau undertakes to underwrite the cost of sickness, arranging the financial details so that both the physician and the hospital are paid their fees at once, the patient amortizing the amount over a period of months. The plan is in operation in many other medical centers, much to the satisfaction of all concerned. It is in no sense connected with any socialized medicine project; rather does it enable the worthy individual to "save his face" and to get adequate medical and hospital treatment without calling on relief authorities. We made a rather brief study of a similar plan on a recent visit to a thriving western community and the reports from those in charge would indicate that it is working out very well. We commend a similar plan to several of our larger county medical societies.

In this issue of *THE JOURNAL* there is published a communication having to do with a questionnaire sent out to high school principals and coaches some time ago on the subject of basketball and its effect upon players in our high schools. The findings of the committee are quite at variance with the opinions expressed in an editorial in *THE JOURNAL* which was written by one who had made quite a study of the problem. In fact, the present article makes a controversy of the matter, but since the prime purpose of *THE JOURNAL* is to supply a medium for the exchange of medical opinion, both articles are published. Being unacquainted with the subject, we make no personal comment. However, the "Voice of Medicine" is open to all discussants of this question. At this particular time, we commend to those interested in this subject an article entitled "Burning Up Boyhood," by Coach Lawson Robertson of the University of Pennsylvania, together with editorial comment by Dr. Thurman B. Rice, published in the May *Bulletin* of the Indiana State Board of Health.

Schistosome dermatitis is the name which has been coined for what is commonly termed "swimmer's itch," that pestiferous affliction noted after having taken a dip in certain lakes in Wisconsin and Michigan. Edwards and Bracket, in the *Wisconsin Medical Journal* for July, describe an investigation which they conducted along these

lines. Their conclusions are that the infection is caused by one or more varieties of larvae of trematode worms, termed cercariae. It seems that the snail commonly serves as host to the eggs from which these larvae are hatched and they thus find their way into the infested waters. The itching produced by this infection is intense, even to the formation of pustules in some cases. It simulates that of scabies, though there is no indication of burrowing. As a means of control of infested waters, the authors suggest eradication of snails, using copper sulphate for this purpose, though they remind us that this solution will kill fish and other forms of life, hence must be used with proper precautions. Thus does the vacationist meet with another hazard. He is warned to take typhoid shots, to be careful of his drinking water and food supply, to be on guard against ticks that possibly may infect him with Rocky Mountain fever, and now comes schistosome dermatitis to cause an additional worry!

The legislature of the State of New York some time ago enacted a measure limiting the treatment of compensation cases to physicians certified by their county medical societies and as was to be expected the matter soon found its way into the courts of that state. A recent Court of Appeals decision is to the effect that the legislature was wholly within its rights in enacting such a law. Later, the Supreme Court of the United States refused to review the case, placing the seal of finality upon the law. The *New York State Journal of Medicine* editorially comments on these decisions and wonders if this might not pave the way for the adoption of a similar principle in the matter of expert testimony. In that state a special committee from the Bar of the City of New York has been conferring with a committee representing organized medicine in an endeavor to bring about radical changes in expert testimony. Our own State Association has under consideration a revival of a similar committee and already has the assurance of cooperation from the Indiana State Bar Association. That there is need for drastic revision of the present system of expert testimony, not only in Indiana but in practically every state, cannot be denied, and it is hoped that out of all these conferences will come some workable plans.

Recently a man in a neighboring city telephoned to ask whether a man presumed to be engaged in the practice of medicine in that community had obtained a proper license. Several years ago, as a member of the State Board of Medical Registration and Examination, we had several experiences with the man in question. He was licensed under the law of 1897 which provided that all then engaged in the practice of medicine within the state

should be given a certificate. This man, late in life, found himself in straitened circumstances and in order to earn a living sold himself in bondage, *i. e.*, he joined a non-medical faker who operated a "Men's Medical Specialist" office. The owner and operator of the office was arrested and given the largest fine possible under the law on several occasions. The foregoing information was given to the inquirer and a few days later he telephoned again to say that the doctor mentioned had not been in that office for several months but that the operator—a man without a permit of any sort—was carrying on the business as usual and was administering salvarsan injections and collecting generous fees. The suggestion was made that the 1937 amendment to the medical law made provisions for an injunction suit, and the inquirer promised to look into the matter at once. All of this again brings to mind that, though we have an excellent medical law, the provisions for enforcement are not at all adequate. This is not said in criticism of the State Medical Board, for the present group is carrying on in a highly satisfactory manner, but we do feel that some provision should be made whereby such flagrant abuses may be controlled.

The Association's Committee to Study Cultists and Irregular Practitioners has been an active one so far this year, and has acquired much first-hand data from the various county medical societies and from other sources. They will be interested in a decision of the Kansas Supreme Court, a few weeks ago, to the effect that osteopaths are *not* Doctors of Medicine, and therefore cannot carry on a practice outside of the field in which they are licensed. The case under review concerned an osteopath who maintained a private hospital in a Kansas city, in which institution he and other osteopaths carried on a regular medical and surgical practice. The matter was brought before the Supreme Court by the Attorney General of Kansas, who was assisted by several attorneys, some of whom were engaged by the State Medical Society. In the papers filed it was freely admitted that the osteopaths were carrying on a general practice of medicine and surgery, their contention being that their licenses gave them the power so to do. The court decision, a lengthy one and yet one that makes very good reading material, was to the effect that the osteopaths legally could not carry on a general practice; that they were limited to osteopathy, which cult does not include general surgery nor does it include the use of drugs in the treatment of cases. This decision, following so closely upon that of the Iowa Supreme Court in the matter of the chiropractors should give much encouragement to our Association's committee and it is hoped they will be able in some manner to get the matter of irregular practices of many of our drugless licensees before

our Indiana courts, that we, too, may learn just how far these irregulars may go.

Dean W. D. Gatch of the Indiana University Medical School, in a dinner address to the retiring internes of the Indianapolis Methodist Hospital, gave a glowing tribute to the family doctor. Dr. Gatch, while limiting his own practice, is in a position to know of the work done by this group of the medical profession usually known as the general practitioners, and his characterization of them is worthy of repetition. In part, Dr. Gatch said:

"The man who does general practice often feels that he is the 'forgotten man' of medicine—destined to do the more lowly tasks of the profession and to be looked down upon by the lordly specialists. There are two errors in this situation. The general practitioner really needs to know more medicine than the practitioner of any specialty. On him the profession and public rely for the success of various campaigns against disease—against cancer, syphilis, tuberculosis and infant and maternal mortality. The general practitioner needs to know the basic facts of every specialty. Furthermore, he must be able to mold public opinion of the community in which he practices to favor preventive medicine and the care and preservation of health." Commenting upon Dr. Gatch's remarks, the *Indianapolis News* editorially says that "The old time doctors had to know medicine. They were not the forgotten men of their era, nor are they forgotten now. If this tends to be a period of specialization in medicine and surgery, it is largely because the public demands the service of specialists. Every person who obtains a license to practice medicine in Indiana is trained in the fundamentals and serves his internship. . . . They must decide, when the time comes for them to open their offices, what their line of work will be. If they can inspire confidence and establish the relationship of the old time physician, they will be sure of useful and appreciated careers."

Though we have grown to dislike the trite phrase, "Never before in the history of" this or that, it becomes essential to repeat it in calling attention to the work done by committees of the Indiana State Medical Association this year. More committees, more action, and more results can be recorded for this year's Association work than "ever before in the history of" the Association. In the September JOURNAL, along with the program for the annual convention, there will be published reports from all committees that have functioned this year, and you will profit by a careful study of them. The amount of work done by your colleagues (and yourself, perhaps) is of inestimable value. If you would know what is going on in the Indiana State Medical Association, read those reports; they are worth your time, attention, and comments.



President's Page



THE NATIONAL HEALTH CONFERENCE

Washington, D. C.
July 20, 1938.

Organized to the last detail and staged to perfection to put over a gigantic program of expenditure for health services, and a consideration of compulsory and voluntary health insurance, the importance of this National Health Conference cannot be over-estimated.

It was a matter of no little concern to the many medical men present that spokesmen for the American Medical Association were hailed as "ostriches with their heads in the sand," "obstructionists," "a hierarchy who refuse to heed the needs of the poor or their own colleagues who lack patients."

The reports of the technical committee that has been studying the subject recommend the expenditure of one billion eight hundred million dollars for the expansion of public health and hospital facilities over a ten year period. A report of the study on compulsory health insurance suggests the expenditure of two and six-tenths billions annually. One section of thought, including the American Federation of Labor, would raise this money by a seven and one-half per cent pay roll tax; another section (including the Committee for Industrial Organization) wants it financed out of general taxation.

It is noteworthy that there were few representatives of the so-called conservative elements of American life present, such as Finance, Industry, Transportation, Insurance. Small business had little if any representation although a responsible official of the conference stated that these groups had been invited.

Naturally, in so large a congregation as this, many and varied discussions and programs were put forth. Some of them were of the soap-box or crack-pot variety, but in the main they represented the mature thinking and considered judgment of a highly intelligent and expert group of specialists in their respective fields.

Out of the great mass of material and opinion expressed at this conference one outstanding fact overshadows all others: **American Medicine today faces the greatest crisis in its history.** Will it move with the new social order, or will it stand firm with the old order?

The Indiana State Medical Association has, I believe, pointed the way to American Medicine in its acceptance of a progressive attitude toward the new social problems. There is no reason why the problems presented here cannot be worked out within the framework of our present medical set-up, and without danger to our established traditions and standards **if all of the interested elements of our society will work together with honest, tolerant cooperation** in a true spirit of science and not the emotionalism of a political convention.

As I leave the conference, after three hot, intense days, packed with emotion and drama and, I believe, a sincere desire to do good for the American people, I cannot help sensing a challenge—a **challenge to American Medicine to assume leadership.** Certainly there is enough ingenuity and imagination in our great profession to accept this challenge.

Arthur M. Parker

Come to Indianapolis in October

To Members of the Indiana State Medical Association:

An organization succeeds wholly by the interest and enthusiasm of its membership. Every member of our State Medical Association can feel very proud of the achievements of our organization, its past and present leaders, and the good influence it has had in the community. The program committee of our State Medical Association, and other committees, have devoted hours of hard work in order to make the annual meeting a great success both scientifically and socially. The Indianapolis Medical Society and members of the Woman's Auxiliary, acting as hosts to the visiting societies, will endeavor to make your visit to the Indiana State Medical Association meeting an enjoyable and profitable one. As president of the Indianapolis Medical Society, I wish to extend a hearty welcome to every member of every county medical society, and also to your wives, because I can assure you that the scientific program will be profitable and the social activities will be pleasant.

Robert M. Moore, M.D.,

President Indianapolis Medical Society

ANNUAL CONVENTION—OCTOBER 4, 5, 6, 1938

Tuesday, October 4, registration will begin. Scientific and commercial exhibits will open. The annual golf tournament, the annual trap shoot, and this year an archery contest will occupy the attention of sportsmen-physicians.

The Council will meet at noon for a luncheon meeting.

The House of Delegates will meet in the afternoon.

The evening will be devoted to entertainment. Women physicians will have their dinner meeting at the Propylaeum. A smoker and stag party will be held in the Egyptian Room of the Murat Temple for the doctors. A theater party or other entertainment will be arranged for the women guests.

Wednesday, the general scientific meetings will begin. On the morning's program will be included these speakers:

Henry F. Helmholz, M.D.,
Professor of Pediatrics,
University of Minnesota Graduate School of
Medicine.

Charles A. Elliott, M.D., Professor of Medicine,
Northwestern University Medical School, Chicago.

Henry S. Ruth, M.D., Associate Professor of Anesthesia, Hahnemann Medical College and Hospital, Philadelphia.

At noon time the fraternity, class, and ex-service men's luncheon meetings and get-togethers will be held.

In the afternoon the section meetings will be conducted.

The annual banquet will be held in the Murat Banquet Room, Wednesday evening, October fifth. Speakers will be:

Rock Sleyster, M.D.,
Wauwatosa, Wisconsin, president-elect of the American Medical Association.

Dr. George E. Vincent,
Greenwich, Connecticut. Subject: "The Pain of Thinking."

Thursday, October sixth, will be the time of the second meeting of the House of Delegates and of the Council.

The general meeting on Thursday morning will include these speakers:

Frank E. Adair, M.D.,
Assistant Professor of Clinical Surgery, Cornell University Medical School, New York.

Everett D. Plass, M.D.,
Professor of Obstetrics and Gynecology,

State University of Iowa College of Medicine, Iowa City.

Herman L. Kretschmer, M.D., Clinical Professor of Surgery, Rush Medical College, Chicago.

Walter E. Dandy, M.D., Adj. Professor of Neurological Surgery, Johns Hopkins University School of Medicine, Baltimore.

Roy D. McClure, M.D., Henry Ford Hospital, Detroit.

* * *

This is a very sketchy outline of the program that is being planned for you in Indianapolis, October 4, 5, 6.



**Murat Theater—Headquarters for
the Convention**

Coming Events—October 4, 5 and 6

ANNUAL CONVENTION — INDIANA STATE MEDICAL ASSOCIATION

GOLF

The annual golf tournament will be held Tuesday, October fourth, at the Indianapolis Country Club. It will be the usual eighteen-hole tournament, to be played any time during the day. The golf committee is making arrangements for a splendid tournament and plenty of prizes. Details will be published in the September JOURNAL.

KARL RUDELLE, M.D., Chairman,
CLEON NAFE, M.D., Co-chairman.

SCIENTIFIC EXHIBITS AT INDIANAPOLIS

The scientific exhibit is in the process of being planned for the meeting October 4, 5 and 6. It is necessary that we know by August 10 the number of exhibits to be prepared for. Those members wishing to present an exhibit should apply immediately for space by writing to the chairman of the Committee on Scientific Exhibit.

C. G. CULBERTSON, M.D., Chairman,
702 Wilson Street,
Indianapolis, Ind.

ANNUAL BANQUET

Every effort is being put forth to make the annual banquet a success not only from the gastronomic standpoint but in every other way, for an innovation is planned this year. Instead of listening to post-prandial speakers through the clatter of dishes being cleared away, guests will be taken to the auditorium of the Murat Theater where they and the speakers will be undisturbed by extraneous noises.

Preparations are being made to entertain 1,200 guests at the banquet. It will facilitate the work of the banquet committee if reservations are made as promptly as possible.

EDGAR F. KISER, M.D., Chairman,
Banquet Committee.

THE WOMAN'S AUXILIARY

GREETINGS!

The Woman's Auxiliary to the Indianapolis Medical Society is proud and happy to be hostess for the State Convention in Indianapolis, October fourth, fifth, and sixth, and extends a cordial invitation to each wife, mother, and daughter of visiting physicians.

We especially want to make this an interesting outing for you, as will be seen by the varied program now being arranged. We know you will enjoy visiting our beautiful new stores, lovely shops, and theaters.

MRS. GEORGE W. BOWMAN,
President.

MEDICAL VETERANS

During the convention, there will be a luncheon meeting for medical veterans of the World War. The time and place will be announced in the September JOURNAL.

COL. LARUE D. CARTER, M.D., Chairman.

WOMEN PHYSICIANS

Women physicians will be entertained at dinner at the Propylaeum, the evening of Tuesday, October fourth. Dr. Lillian B. Mueller and Dr. Martha Souter will assist the chairman in perfecting arrangements for the meeting.

JANE KETCHAM, M.D., Chairman,
Committee for Women Physicians.

ATTENTION TRAP AND SKEET SHOOTERS!

The committee is planning a big tournament during the annual meeting of the State Medical Association. The program which will appear in the September issue of the JOURNAL will appeal to both trap and skeet shooters. Details will be given at that time. Come prepared to take part in these exciting events. The novice will have the same opportunity as the old timer to win prizes.

When the State Medical Association met at Indianapolis October, 1934, the trap shooters held their second annual tournament. Forty-three contestants were entered in the various events and many of them won attractive and useful prizes. The Trap Shoot Committee this year is preparing to handle a larger number of entries than in 1934. The popularity of this sport is noted by the definite increase in the number of doctors and dentists who have taken it up.

LEONARD A. ENSMINGER, M. D.,
Chairman.

Postgraduate Course In Southern Indiana

French Lick Springs Hotel — September 7 and 8, 1938

Arrangements have been made for a two-day graduate education meeting, Wednesday, September 7, and Thursday, September 8, 1938, at the French Lick Springs Hotel. The meeting will be under the joint sponsorship of the Indiana State Medical Association, the Third District Medical Society, and the Orange County Medical Society.

The preliminary program is as follows:

WEDNESDAY, SEPTEMBER 7

Morning

Registration, golf, and trap shoot

Afternoon

- 1:30 Speaker: CARL T. HUBER, M.D., of the Chicago Lying-In Hospital and Dispensary.
Subject: Obstetrics in General Practice.
- 2:30 Speaker: ALFRED R. SHANDS, JR., M.D., Wilmington, Del., Assoc. Professor of Orthopedics, Duke University School of Medicine.
- 3:30 Recess.
- 3:45 Speaker: ISIDOR H. TUMPEER, M.D., Chicago.
Subject: Pediatric Adventures in Allergy.
- 4:45 Questions.

Evening

6:30 Dinner meeting. Speaker to be named.

THURSDAY, SEPTEMBER 8

Morning

10 to 12 m.

Program arranged by Richard Kovacs, M.D., New York, from representatives of the Spa Committee of the American Congress of Physical Therapy. This committee will be inspecting French Lick Springs on September 8.

10:00 a.m. Speaker: BERNARD FANTUS, M.D., Chicago.
Subject: The Role of the Spa in Therapy.

11:00 a.m. Speaker: RICHARD KOVACS, M.D., New York.

Subject: Use of Physical Therapy by the General Practitioner.

(Illustrated with lantern slides)



Bernard Fantus, M.D.



Richard Kovacs, M.D.

Afternoon

12:15 to 2:00 Noon luncheons with two principal round table discussions: (1) Internal medicine and therapeutics; (2) Surgery and orthopedics.

2:00 to 4:00 Spa Committee speakers:

2:00 p.m. Speaker: WALTER S. McCLELLAN, M.D., Medical Director, Saratoga Spa, Saratoga Springs, New York.

Subject: Recent Advances in the Therapeutic Application of Plain and Mineral Waters.

3:00 p.m. MADGE C. L. McGUINNESS, M.D., New York.

Subject: Physical Treatment in Gynecological Conditions.

ALL MEMBERS OF THE INDIANA STATE MEDICAL ASSOCIATION ARE INVITED TO ATTEND AND PARTICIPATE IN THIS PROGRAM

The Doctor and His Insurance

MORRIS R. LEVI
EVANSVILLE

As a boy playing sand-lot baseball, I can recall my best friend telling me that his dad would have been a rich man if he had not invested so much money in gold mines. That boy's dad was a doctor—a specialist, and a good one, who made a good income and who died a comparatively poor man as a result of his bad investments.

I have never forgotten that boy's statement and it is vividly recalled whenever my doctor acquaintances tell me of the profitable investments they have made in oil and other mediums.

Life insurance and annuities are "naturals" as investments for professional men. Where else can they find the ultimate in security with no troublesome cares concerning the reinvestment of profits—if any?

In life insurance it is the continuous action of reinvested compound interest that enables the companies to show the attractive results.

INSURANCE FOR THE PHYSICIAN

What is the best form for a physician or other professional man to buy? Well, there are no "best" forms. Insurance should be fitted to a man's needs as a tailor fits a garment but, to generalize, if there is a "best" form, it is long term endowment insurance with retirement income attached. Through this form of insurance the family is protected, and at maturity the insured receives an income for the rest of his life. This income is usually for a period of ten years and thereafter as long as the insured lives, which means that if the insured lives a month beyond the guaranteed period, there would be nothing left for the family. This can be obviated by a clause issued during the life of the insurance policy by which the company agrees to continue the income to the beneficiary regardless of the time of death of the insured.

The type of insurance described above is especially designed to pay a large income at maturity and the protection angle is subordinated to accumulating funds with which to pay the income. As a matter of fact, any type of insurance except term can be used as the basis for a retirement income program, for all policies provide tables whereby the insured or beneficiary may use the proceeds of cash value or death claim to buy himself an annuity payable for life or for a stated number of years. And because such tables do not provide for payment of commission to agents, the income provided per dollar is larger than if you bought an annuity from an agent at the same age and in the same amount.

You may buy any type of life or endowment policy and at a given age take the cash value and with it purchase a retirement income. The amount of your retirement income, of course, will vary with the age of the payee and the amount he has to invest. It will be readily understood that the older the payee the shorter his expectancy and, therefore, the larger his income per dollar invested.

THE FAMILY INCOME POLICY

Sometimes the premiums on retirement income endowments maturing at ages 55 and 60 entail premiums so high that the insured cannot buy enough to give his family what he considers a livable income. During the late but not lamented "Great Depression," the companies brought out a form to meet this need. It is variously called Family Income and Family Maintenance.

Through this medium, the purchaser is able to buy his retirement income and at the same time provide a liberal income for his family in the event of premature death. Let us take, for example, the Family Maintenance form. On a \$10,000 policy, in event of death, the family would receive \$100 a month until the insured would have been 65 years old, and at that time there is still \$10,000 intact which the widow may use to buy herself an annuity. Larger or smaller policies pay incomes in exact proportion.

The Family Income rider differs in that it pays the income for a shorter period of time, varying with company practice. On some family income policies, the \$100 monthly income on a \$10,000 policy is paid plus the interest on the \$10,000 face amount of insurance. That means that at the death of the insured, the widow may take the \$10,000 in cash and still receive \$100 monthly income or she may leave the \$10,000 with the company and draw the interest on it in addition to the Family Income payment of \$100 per month.

Family Income periods usually run from ten to twenty years and the purchaser gauges the length of time it is to run by the age of his children. It is the intent to give the wife a sufficient income during the dependency of her children.

Family Maintenance and Family Income riders are attached to all forms of insurance except term insurance, a form which we shall presently discuss.

MOST FLEXIBLE FORM OF POLICY

In my opinion, the most flexible form of insurance is what is termed Ordinary Life or Whole Life as some companies call it. It is the lowest

priced form of permanent insurance, and in the case of participating insurance, by leaving the dividends at interest, it can be changed into paid-up or endowment insurance, while by deducting the dividends the cost per year is reduced considerably. Practically all policies contain a clause whereby the insured may change his policy to a form with a higher premium without evidence of insurability. This means that the purchaser may complete his program with Ordinary Life and, as his income justifies, gradually change it to the Income Endowment plan. If, however, he never finds it possible to make the change, he can, at any age he desires, discontinue his insurance and use the cash value to buy himself a life income, the amount of the cash value and his attained age governing the amount he will receive.

PAYMENT LIFE POLICIES

Twenty pay and thirty pay life policies come in the category of "limited pay policies." These are simply whole life policies on which the policyholder pays enough in a specified number of years to enable the company to carry the risk for the rest of his life.

A twenty pay life policy means that at the end of 20 years the policyholder may take a policy that is paid-up for the rest of his life. The cash value is usually about half the face amount. Thus, a 20-payment life policy for \$1,000 will usually have a cash value at the end of twenty years of about \$500. Men in the life insurance business find more misunderstanding regarding payment life and endowment policies than any other forms. An endowment means that at the end of the policy period, the face amount of the policy is paid in cash. A payment life policy, as stated above, means that the face of the policy is continued for life without further premium payments. And, in the case of participating companies, the policyholder continues to receive dividends after the policy is paid-up.

My personal experience, over a period of 20 years, is that 20-payment life, once a prime favorite, is being replaced by the Ordinary Life and Endowment forms. However, there seems to be an increasing number of young men buying the 30-payment life form with a premium slightly higher than the Ordinary Life and lower than the 20-payment life. I think this is particularly attractive for very young men, giving them a low premium and yet putting a "stopping place" on their premiums while they are still comparatively young.

TAKING A LIEN ON INSURANCE

So far we have discussed the permanent forms of insurance. Now let us take up term insurance, the temporary form. It is usually written for a period of five or ten years. The rate is very low; there is no cash value; the policyholder is simply buying protection. And yet there is a very definite place for this form.

As the rate is about half that of Ordinary Life, it is possible for the assured to buy a volume of this coverage without a big outlay of money. The purchase of term insurance gives him a lien on the amount of insurance he hopes ultimately to carry, for once you have the term insurance, the company is bound by its contract to convert it for you to any other form you want regardless of the state of your health at time of conversion.

That is why I call term "a lien on insurance." By its purchase you guarantee to yourself the right ultimately to acquire the amount of coverage you want. My files contain some very interesting instances of the purchase of large sums of term insurance by men who became uninsurable during the term period but, because of their foresight, were able to convert their term insurance and acquire permanent insurance at standard rates when they would most assuredly have been rejected had they applied for coverage at the time of conversion.

Just a few instances of the use of term insurance: A man makes an investment which he hopes to pay off in ten years. He takes a ten-year term policy to pay off the obligation in case of his death, instead of leaving it to become a charge against his estate.

A young married man buys a home; he covers his indebtedness with term insurance and the rate is so low that the charge will barely add 1 per cent to his interest rate.

Having acquired a wife, a young man finds himself unable, with the other expenses attendant on marriage, to pay the premium on permanent insurance. So he buys a volume of term and sets himself the task of converting a given amount to permanent insurance each year. At the end of the period he has his insurance on a permanent basis, he has shouldered the burden gradually and he has had insurance in the meantime at minimum outlay.

You will note that I say he has had insurance for minimum "outlay," not cost, for in actual "cost," term insurance will usually be found to be more expensive than Ordinary Life when the cash value is deducted from the amount you have paid in as premium on the Ordinary Life.

I have spoken of "participating companies." These are companies paying dividends to their policyholders. There are two types of companies, "participating" and "non-participating." The former charge a higher rate and return part of the premium in the form of dividends. This "dividend" varies in amount with the mortality experienced by the company and by its ability to earn interest. Most of these are mutual companies although there are a number of excellent stock companies operating on the participating plan. The non-participating companies are stock companies and the rate charged by them remains constant during the life of the policy.

Let me here say just a word about insurance

for tax purposes. Any good underwriter can help you figure what your estate will have to pay in event of your death. Few men carry enough cash to settle these obligations and, unless you wish some of the insurance you carry for your family diverted for this purpose, make a point of buying a policy ear-marked for this purpose.

Another bit of advice: Don't think because you have a wallet full of policies that your insurance needs are satisfied. Seek a good underwriter's advice on how to use the insurance you have. He will show you how to apply the insurance you now have to provide a clean-up fund to take care of your last expenses, an income for your wife and children, an educational fund for the youngsters and last but far from least, that income to make your own declining years free from financial worry. There are other matters he will know about, too. Are your beneficiary designations correctly drawn? Many a time I have found policies made out to the insured's estate when by designating a beneficiary he could save his estate costly court costs.

DISABILITY INSURANCE

Second only to the loss of his life is the loss of the professional man's time. It is all he has to sell. When he loses the power to sell his time, his means of making a livelihood are at an end. Therefore, disability insurance is of major importance to him. What does the insurance market offer?

In my opinion the disability clause still offered by some life insurance companies is the best coverage he may obtain. These clauses either pay for life or to age 65, without requiring house confinement, and in the meantime the "waiver clause" pays his premiums as they come around.

Formerly there were non-cancellable health and accident policies sold by major companies which paid during the insured's lifetime and which did not require house confinement at any time. To the best of my knowledge there are none of these on the market. There are non-cancellable health and accident policies sold, but my information is that all of them either are cancelled when a definite sum has been paid, or confinement to the house during disability is a requirement.

The average cancellable health and accident policy sold today usually pays health benefits for one year unless the house confinement clause is a part of the contract. A few good companies are writing policies paying for life for disability from both health and accident but requiring house confinement during disability from sickness.

In my opinion a health and accident policy is no better than the company that issues it. I would carefully examine the financial status of the company behind the policy. It is too late to make that examination after a claim develops. I have even found doctors possessing non-cancellable health and accident policies in companies whose total assets were less than the sum in the doctor's checking account!

ANNUITIES

Annuities are the prime headache for insurance companies. Rates have been repeatedly increased in the last few years and with interest rates remaining at current low levels, most companies again increased their rates July first. But annuities are among the best investments a professional man can make. After all, he is practicing his profession, and cannot spend his time "watching the market" and investigating the quality of the investments offered him. When he buys an annuity his investment worries are over. He knows that at a given date he will receive the amount of income he has purchased and the record of the companies in the "Great Depression" is sufficient guarantee that they will meet their obligations.

Compare the state of mind of the doctor who, with a break in the market, has to dig up every available dollar to margin the stocks he has bought, with the man whose money has been entrusted to a good life insurance company and whose only care is meeting the annual payments as they come around.

So far I have mentioned only the annual premium deferred annuity written by most companies. This is very similar to the retirement income endowment mentioned early in this article except that in the event of death the return is limited to the amount paid in or the amount paid in plus interest.

The annuitant selects the age at which he desires the income to begin and next determines how much a year he can afford to deposit. At the age he has selected he can either elect to take the cash he has accumulated or the income, and he may select the income in accordance with his family situation at that time.

If he has no dependents and has only himself to think of, he may elect an "annuity without return," which means that he will receive the largest possible return, but in event of his death there is nothing coming to his estate. Or, if he has dependents, he may elect the "refund annuity." This form pays to his heirs any part of the sum accumulated he has not lived to receive. Then there is the annuity with 120 payments guaranteed which pays a slightly larger return than the refund annuity. He will receive the annuity payment from this as long as he lives, but if he dies after receiving 120 installments there will be nothing left for his estate.

Most companies will permit the addition of a rider permitting the annuitant to take at maturity a form of annuity which will pay the income to him and to his wife as long as either one of them lives. Of course, in this case, the income is smaller, as the company guarantees to pay during the period of both lives and while the annuitant may die shortly thereafter, his wife may live for many years to enjoy the income. It is the experience of insurance companies, by the way, that

female annuitants outlive the males. For that reason in arriving at rates, there is a variation of five years in the rates of most companies. For instance, a man 60 years old will receive the same income that would be given a woman 65 years old.

Some companies still write the deferred annuity on the lump sum basis. In this case, the annuitant pays in a lump sum and lets it accumulate until he is ready to take his income. If he has need of money before he takes the income, he may withdraw his funds with interest, but, because of the condition of the investment market, most companies require that he take the cash in five annual installments.

For the older investor there is the immediate annuity. In this case the investor pays in a lump sum and begins to draw an income immediately. This income may be taken annually, semi-annually, quarterly, or monthly. As may be expected, the yield is greatest if the income is taken on the annual basis and smallest if the payments are made monthly.

There is a variety of contracts under the head of immediate annuities, but the most popular are the life and refund annuities. In the case of the former, the annuitant pays in a lump sum and draws an income during his life. At death there is nothing to be paid his estate. In the case of the refund annuity, any unpaid part of the initial investment is paid the beneficiary.

As I have previously explained, there is also a form through which an income may be paid during the lives of two people, the income ceasing at the death of the second with no refund to either estate.

The sales of annuities are constantly increasing. I am reliably informed that the insurance companies do not want them, due to their investment problems. If that is the case, it should follow that they are a good investment for the public, though increased sales may bring additional gray hairs to the members of the companies' investing committees.

BASKETBALL (White-Boyd)

(Continued from page 408.)

Some critics have implied that examining physicians in local high school are either careless or incapable of making the required examinations. We deny the allegations and maintain that more reliance can be placed upon the local physician than upon any outside critic, whether the critic be physician, official, or laity. Our experiences lead us to believe that we should not further restrict the basketball tournament, but rather that we could well return to the plan used in former years except to limit the number of games played in any one day, and we might further suggest that there be two classifications of the high schools with two tournaments held concurrently.

"DOC QUIZ" ASKS—

Question 1: What surgical procedure should be used in acute streptococcus lymphangitis of the hand and arm?

Question 2: What laboratory test and what examination should be made before treating a badly infected ingrown toe nail?

Question 3: What is a convenient way to remember most of the diseases associated with a leukopenia?

Question 4: What is the best way to give morphine for renal colic?

Question 5: What drug other than morphine relieves renal or ureteral colic?

Question 6: What drug is useful in the treatment of impotence?

Question 7: How does the treatment of pyuria in children differ from that of adults?

Answers on page xxiii

Under the Capitol Dome

BOARD OFFICES CLOSED

Offices of the Indiana State Board of Medical Registration and Examination will be closed for a vacation period, September 1 to 17, Miss Ruth V. Kirk, executive secretary, has announced. Persons with urgent business or those desiring information should get in touch with Dr. J. W. Bowers of Fort Wayne, board secretary, during the period.

LICENSES REFUSED AND REINSTATED

The Indiana State Board of Medical Registration and Examination denied petitions to re-instate two physicians whose licenses had been revoked as the result of convictions of violating the narcotic laws. The action was taken at the semi-annual meeting of the board, July 12. At the same time the board reinstated one physician.

Those whose re-instatement was denied were Dr. William J. Porter of Greensburg, revoked Jan. 14, 1936, and Dr. Benjamin F. Patton of Terre Haute, revoked July 9, 1935.

The license of Dr. George H. Espenlaub, of Evansville, revoked November 16, 1937, was reinstated.

The next meeting of the state board will be in the latter part of August, but the exact date has not been set.

CARE IN FILLING OUT BIRTH CERTIFICATES

The Vital Statistics law requires the physician in attendance at a birth to file a certificate with the health officer having jurisdiction, within 36

hours after birth. This should be prepared upon the standard form of birth certificate. After the local health officer has entered this birth upon his records, the original certificate comes to the State Bureau of Vital Statistics, where it is card indexed and carefully preserved, and may prove of great value to the child in future years.

In order for this certificate to be of value, it should, of course, be correctly filled out. Physicians should use every care in spelling the name correctly. They should ask the parent the correct spelling for, if a name is misspelled, it cannot be located in the card index file.

Physicians should refer to a calendar or inquire as to the correct day of the month. It is surprising how many records are filed, upon which the date of birth varies one or two days from the parents' statement of the date. When copies are furnished for such records, the parents invariably accuse the Bureau of Vital Statistics of making errors. Of course, the copies on file with the State Department are made just like the original that is filed.

Physicians should be very careful to file these certificates promptly. Records coming in even one month late cannot be placed in their proper place. This makes it difficult to locate the record. The physicians should explain to the parent, when filling out the certificate, that it will be filed with the local health officer. This official is responsible for births occurring in his jurisdiction. The parents should at all times inquire of their local health officer regarding the recording for their children's births, and not direct to the state office, as it takes some time to get all the births properly indexed and filed, and the state office should not be called upon for copies, unless such records are needed for official purposes.

We should like to notify every parent when a certificate of their child's birth has been properly received at the state bureau, but to do so is too great a task for the limited staff of the bureau. Some local offices are sending Registration Certificates to new parents.

Physicians should never prepare copies of birth certificates for parents. Only one certificate should be prepared by the attending physician, and he should file this promptly through the proper channels.

The importance of birth registration is now so keenly felt that the full cooperation of all Indiana physicians in carrying out the instructions outlined herein is necessary.

Note: The foregoing statement has been prepared by Mr. H. M. Wright, Director of the Bureau of Vital Statistics of the Indiana State Board of Health, on the request of the Sub-committee of the Indiana State Medical Association for the Study of the Causes of Infant and Maternal Deaths in the State of Indiana. While the response of the physicians throughout the State has been excellent from the standpoint of filling out report forms for the study now being conducted, nevertheless when the Committee attempts to evaluate the reports sent in by the attending physicians, these errors have been commonly noticed. The Committee urges that the physicians read the above suggestions

carefully, as it will greatly aid them when evaluating their studies. This is to be especially noted in the cases of premature births.

During the period January 1, 1938, to June 30, 1938, the following applicants have received certificates to practice medicine granted by reciprocity.

Lawler, Daniel H.	Huggins, Victor S.
Bohnengel, Chas. Andrew	Mueller, Lawrence Wm.
Crum, Marion Maurice	Smid, John J.
Gorman, Robert Bresette	Parent, Ernest J.
Mahoney, Charles Leo	Malcolm, Russell L.
Moore, Bert Edward	Hanselman, Russell C.
Henry, Lucy Dell	Schulhof, Maurice
Streck, Francis Anthony	Purves, Wm. Lewis
Williams, Bryan G. R.	Zimmerman, Harold
Goodman, Hubert T.	Wilhelm, Agatha M.
Keemer, Edgar B. (col.)	Forster, Robert Eugene
Petronella, Samuel J.	Crawford, Helen Lucile
Shufflebarger, Forest G.	Drohan, Edward Peirce
Weaver, M. McDonald	Lambertus, Paul T.
Lamey, James Leo	Prusait, Walter
Cohen, Benjamin B.	Meyers, Geo. Anthony
Witherspoon, Jackson T.	Tabaka, Francis B.
Weinstein, Edwin B.	Morris, J. Benton
Taylor, Gordon B.	Dorrance, Thomas Olney

TOPIC-OF-THE-MONTH FOR AUGUST: OCCUPATIONAL DISEASES

This is the outline from the booklet on Indiana's Plan, approved by the American Medical Association at San Francisco. The Plan's suggestions in regard to Occupational Diseases are:

Occupational diseases form approximately 2% of the total disability from industrial causes.

1. Assist employers to cope with employees' health problems with cooperative attitude on the part of the medical profession.

2. Pre-employment thorough physical examination.

3. Periodic health examination. (If routine blood tests are made on the employees, treat—don't fire.)

4. Majority of occupational diseases are skin infections, many of which are preventable.

5. Patch testing of employees in occupations producing dermatitis will greatly decrease illness.

6. Teamwork of industrial physician and general practitioner is very desirable.

7. Industrial physician should direct patients with diseases other than those resulting from employment into the channels of ordinary practice.

8. Find the job that best fits the employee physically.

9. Use existing hospital facilities as much as possible.

Deaths

Clifford Clarence Robinson, M.D., of East Chicago, died July twelfth in a Chicago hospital after a brief illness. Dr. Robinson was fifty-seven years old. Graduating from the University of Michigan Medical School at Ann Arbor, in 1902, Dr. Robinson served his internship there, and in 1903 went to Indiana Harbor where he conducted a private practice until 1917. He obtained a commission in the medical corps of the U. S. Army, but was kept as chief surgeon at the East Chicago plant of the Inland Steel Company. In 1923 and in 1928, he took postgraduate work in European clinics. He was a Fellow of the American College of Surgeons, and a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Daniel F. Randolph, M.D., retired physician of Waldron, died July thirteenth, aged eighty-five years. He had not been in active practice since 1908. Dr. Randolph graduated from the Medical College of Indiana, Indianapolis, in 1888.

* * *

Waheeb Salem Zarick, M.D., of Indianapolis, died June twenty-eighth at his home. He was forty-three years old. He had practiced in Indianapolis since his graduation from the Indiana University School of Medicine in 1927. Dr. Zarick was a native of Tripoli, Syria, and came to the United States as a boy. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

William H. Hawley, M.D., of College Corner, Ohio, aged eighty years, died July sixth, following a heart attack. Dr. Hawley had been a member of the Wayne-Union County Medical Society continuously since 1923, although he had retired from active practice in 1935. He had resided in the College Corner community for more than fifty years. Dr. Hawley graduated from Miami Medical College in Cincinnati in 1885, and was a member of the Indiana State Medical Association and a Fellow of the American Medical Association.

* * *

William Isaiah Scott, M.D., of Kokomo, died July first, aged sixty-three years, after an acute illness of only a few hours. Dr. Scott was born in Kokomo. He graduated from the Purdue University School of Pharmacy, and from the Indiana University School of Medicine in 1898. He served as a first lieutenant in the medical corps during the World War. He was a member of the Howard County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

News Notes

Dr. George W. Kohlstaedt, of Indianapolis, has been reappointed as a member of the Indianapolis Board of Health. He began his new four-year term on July first.

* * *

Dr. Myron Harding has moved from the Bankers Trust Building in Indianapolis to 1017 Hume-Mansur Building, Indianapolis.

* * *

Dr. Donald E. Spahr has opened his office at 116 West Walnut Street in Portland. Dr. Spahr recently completed his internship at the Indianapolis City Hospital.

* * *

After having maintained an office in one location in Middletown for fifty-five years, Dr. F. L. Thornburgh, aged eighty-one years, has retired.

* * *

Dr. A. Ward Bloom of Marion has opened an office in Sweetser, Indiana, where he will keep evening office hours.

* * *

Dr. Fred C. Dilley of Brazil has announced that he has associated with him Dr. O. L. Wood in the practice of medicine and obstetrics.

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Dr. Howard H. Marks of Sullivan has succeeded Dr. Homer Life as resident physician of Ball Memorial Hospital in Muncie.

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The St. Joseph County Medical Society, organized in 1887, has filed articles of incorporation in the office of the county recorder.

* * *

Miss Rosamond Hoagland, of Decatur and Indianapolis, and Dr. Kenneth H. Brown of New Albany and Indianapolis, were married in Indianapolis, July first.

* * *

The American College of Physicians has announced its next annual meeting to be held in New Orleans, La., March 27 to 31, 1939. General headquarters will be at the Municipal Auditorium.

* * *

Dr. David A. Bickel has returned to South Bend from a trip to Europe where he attended the International Congress of Obstetrics and Gynecologists at Amsterdam and visited clinics in London and on the continent.

Dr. Edson C. Fish is now associated with Dr. George M. Rosenheimer of South Bend in the special practice of anesthesia.

* * *

Dr. Chester A. Stayton of Indianapolis has been made a staff member of the Witham Memorial Hospital in Lebanon. Dr. Stayton will devote each Saturday morning to work at the Lebanon institution.

* * *

Dr. D. M. Short of Evansville has gone to Cleveland, Ohio, where he is a member of the resident staff of Charity Hospital in that city. Dr. Short has been on the staff of the Boehne Hospital in Evansville.

* * *

The Second National Assembly of the International College of Surgeons will be held in Philadelphia, October 13 and 14, 1938, with headquarters at the Bellevue Stratford Hotel. All physicians in good standing are invited to attend. There will be no registration fee.

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Nurses, physicians and hospital officials from all parts of Indiana were present July fourteenth at Shakamak State Park when the Indiana section of the American Hospital Association held a meeting there. A luncheon was served at the Freeman Greene County Hospital, and in the afternoon a business session was conducted.

* * *

Dr. and Mrs. J. C. Sharrer of Francesville celebrated the beginning of the physician's fifty-ninth year in practice, July ninth. Dr. Sharrer estimates that there are about 4,500 persons whose birth he has attended in the fifty-eight years of his practice.

* * *

Dr. A. T. Jones of Indianapolis has been named assistant physician at the Michigan City state prison. Dr. Jones, formerly assistant physician at the Indiana Reformatory, succeeds Dr. John R. Miller.

* * *

Miss Joan McDonnell of Indianapolis and Dr. J. C. Glackman, Jr., of Indianapolis, were married June twenty-seventh in Indianapolis.

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Dr. E. M. VanBuskirk of Fort Wayne, president-elect of the Indiana State Medical Association, was made a fellow of the American College of Radiology during the session held in San Francisco at the time of the A.M.A. convention.

* * *

Dr. E. I. Wooden of Rushville completed fifty years of medical practice in Rush County, July fourth. Dr. Wooden is the oldest practicing physician in Rush County.

The U. S. Civil Service Commission announces open competitive examination for the position of Social Worker (psychiatric) with the Veterans' Administration. Applications must be on file with the U.S. Civil Service Commission at Washington, D.C., not later than August 8, 1938.

* * *

Dr. Fletcher C. Stewart has arrived in Evansville from Ft. Stanton, N.M., to become medical officer in charge at the Evansville Marine Hospital. Dr. Stewart has been connected with the U.S. Health Department hospital division for thirteen years, serving in San Francisco, Seattle, New Orleans, Baltimore, New York City, Hot Springs, and some foreign stations.

* * *

According to newspaper announcements, the Indiana State Board of Health's new bureau of industrial hygiene, manned by thirteen field surveyors, was scheduled to start an occupational disease survey in Indiana industries the middle of July. Dr. Louis W. Spolyar is director of the bureau. The field surveyors have had a three-day training course under J. J. Bloomfield, former assistant sanitary engineer of the U.S. Public Health Service. Of the state's 3,813 industrial plants, 1,476 will be inspected within the next six months. Inspectors will study atmospheric pollution, environment, heating and lighting and contact of workers with materials. Information obtained will be held confidential, and reports will cover groups of industries.

* * *

The examining room equipment and furniture of the late Dr. C. F. C. Hancock of Jeffersonville has been given by Dr. Hancock's family to the Clark County Memorial Hospital. The gift will enable the institution to equip a special room for the use of physicians.

* * *

The annual meeting of the American Association for the Study of Goiter for this year will be held in Washington, D.C., September 12, 13 and 14, in conjunction with the Third International Goiter Conference. Interested physicians may obtain detailed information and tentative program from the corresponding secretary, Dr. W. Blair Mosser, Kane, Pennsylvania.

* * *

The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in various cities of the United States and Canada on Saturday, November 5, 1938. Last date for applying is September 5, 1938. Applications may be obtained from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Dr. James H. Stygall, of Indianapolis, has been elected governor of the American College of Chest Physicians for the State of Indiana. The appointment was made at the annual meeting held in San Francisco. Dr. Stygall also was re-elected Officer of Sessions of the American Academy of Tuberculosis Physicians.

* * *

Dr. H. S. Leonard, of Indianapolis, recently returned from a two months' trip abroad where he attended clinics in Edinburgh, London, Cologne, Frankfurt, Heidelberg, Berlin, Vienna, Budapest, Naples, Rome, Milan, Zurich, Lucerne, Berne, Paris, and Havre.

* * *

Mr. Ralph F. Schultz has been employed as manager of the Williamsport hospital. The hospital was established five years ago by Dr. T. E. Ward who will continue as hospital surgeon.

* * *

Dr. William J. Dugan, physician of Terre Haute for fifteen years, died at his home in Paris, Illinois, July twelfth.

* * *

Construction work has been started on a new office for Dr. George A. May, in Madison, at the corner of East and Main Streets. The plans include four treatment rooms, an operating room, large reception room, laboratory and x-ray department on the ground floor; two hospital rooms, library, room for treatment of eye diseases, bath room, and living quarters on the second floor.

* * *

WARNING

So many complaints are being received from Indiana physicians in regard to a collection agency that succeeds principally in making enemies of the doctors' patients that it seems best to warn Indiana physicians and to urge investigation of all such agencies that request your patronage. The particular agency about which complaints have been received solicits accounts for collection, then sends a series of letters to the clients which start with mild threats, intimate that the debtor is dishonest, and finally threaten suit. **THE ACCOUNT IS OUT OF CONTROL OF THE PHYSICIAN ALTOGETHER**, and though he may decide to discontinue his patronage of the collection agency, he cannot withdraw the accounts that already have been given to the company, according to the agreement he has made.

Repeated warnings in this magazine against such agencies seem to have done little good, but once more physicians are asked to **READ BEFORE YOU SIGN, and INVESTIGATE FIRST**, when you select an agent to assist you in collecting accounts. Agencies that use such tactics as described above in getting money from your patients are interested solely in the commission they are to have, and are not remotely interested in keeping those patients in a friendly frame of mind toward you.

Dr. Thomas Lathrop Stedman, author of *Stedman's Medical Dictionary*, died May twenty-seventh. In 1904 he edited the twenty-third edition of Dunglison's *Medical Dictionary* and later edited the medical terms for the *Century Dictionary*. In 1911 the first edition of his *Practical Medical Dictionary* was published; the thirteenth edition was published in 1936.

* * *

The preliminary program of the scientific sessions of the sixty-seventh annual meeting of the American Public Health Association has been announced. The meeting will be held in Kansas City, Mo., October 25 to 28, with more than three thousand professional public health workers in attendance. The preliminary program may be obtained by addressing the American Public Health Association, 50 West 50th Street, New York, N.Y.

* * *

The first seizure under the new Federal Food, Drug, and Cosmetic Act of June 25, 1938, was made July fifteenth when the Federal District Attorney at Milwaukee, Wisconsin, caused seizure of a consignment of "Lash Lure the New and Improved Eyebrow and Lash Dye" manufactured by the Cosmetic Manufacturing Company of Los Angeles, California. The Government alleges that the product contains a poisonous or deleterious substance (a coal-tar preparation, paraphenylene diamine) which may make it injurious to users. Numerous instances of severe eye injury to women who have used the product are on record, including a number of cases of total blindness. Until the passage of the new Food, Drug, and Cosmetic Act, the Government has been powerless to prevent continued traffic in this article; under this new Act, the interstate shipment of dangerous cosmetics is prohibited immediately, although in most of its provisions the act does not become effective until June 25, 1939.

* * *

TWELFTH DISTRICT MEETING

The Twelfth District Medical Society will hold its annual meeting November 15, 1938, at Irene Byron Sanitarium, near Fort Wayne.

In the afternoon a clinic on Tuberculosis will be presented by the members of the resident staff and others.

Dinner will be served in the evening, after which Dr. Dean Lewis, of Baltimore, will be the guest speaker.

* * *

SYMPOSIUM ON OCCUPATIONAL DISEASE

The second annual Symposium on Occupational Disease of the Department of Industrial Medicine of the Northwestern University Medical School will be held September 26 and 27, 1938, at Thorne Hall on the Chicago campus. The program will include papers on industrial disease education, the scope of the occupational disease research problem, traumatic neurosis, the health of the worker in

the shop and at home, industrial plant surveys, industrial health and the practicing physician, cardiovascular disease and peripheral vascular disease in the middle-aged group of industrial workers. For complete program and details, address Dr. James A. Britton, Department of Industrial Medicine, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Illinois.

* * *

THE NEW FOOD, DRUG AND COSMETIC ACT

The new Federal Food, Drug and Cosmetic Act, signed by President Roosevelt in June, is a great step forward in the protection of the American public. "It broadens the scope of the old law and, in many respects, reinforces those provisions which have stood the test of time," said Secretary of Agriculture Henry A. Wallace. "It will benefit also the honest manufacturers who are entitled to governmental protection against unethical competitors."

The new act goes much farther than the old law in that it contains positive requirements for informative labeling in the interest of consumers in addition to the negative prohibitions against mislabeling contained in the old statute. The new act amplifies and strengthens the provisions designed to safeguard the public health and prevent deception, and extends the scope of the law to include cosmetics, therapeutic devices, and certain drugs that now escape regulation.

The general provisions of the new law become effective one year from the date of its signature by the President. Certain provisions, however, become effective immediately. These include the prohibition against the introduction of new drugs before they have been tested; the prohibition against drugs which are dangerous to the consumer when used as prescribed on the label; the prohibition against cosmetics which may be injurious to users.

Important respects in which the measure differs from the present law are:

(1) The new law has jurisdiction over all cosmetics except toilet soaps. This means that the American public will be protected against dangerous cosmetics such as eyelash dyes that have been known to cause blindness.

(2) Brings therapeutic devices under control. In the past, many curative claims have been made for devices such as electric belts which have no value.

(3) Regulates drugs intended for diagnosing illness or for remedying underweight or overweight, or otherwise affecting bodily structure or function. Included in this group are the so-called "slenderizers," many of which have caused blindness and death.

(4) Requires adequate testing of new drugs for safety before they are put on the market. The elixir of sulfanilamide which caused the death of nearly 100 persons last year emphasized dramatically the need for this provision.

(5) Provides for the promulgation of definitions and standards for foods. The old law contained no such authority except for canned foods. This means that the definitions and standards which under the old law were not binding, but merely advisory, will now have legal force and effect.

(6) Increases penalties for violations. Under the old law the maximum fine for the first offense was \$200. Under the new act a first offense may be punished with a fine of \$1,000 or one year imprisonment or both. For subsequent offenses under the old law the maximum fine was \$300 or one year imprisonment or both. Under the new law this penalty is increased to a maximum of \$10,000 or three years imprisonment or both. Even for first offenses where the court finds evidence of fraud or deliberate intent to violate the act the maximum penalties are \$10,000 fine or three years imprisonment or both.

(7) Provides authority for the Federal courts to restrain violations by injunction.

(8) Eliminates the necessity for proving fraudulent intent in the labels of patent medicines. Under the new law any such medicine proved to be worthless may be removed from the market.

(9) Requires drugs intended for use by man to bear labels warning against habit formation if they contain any of a list of narcotic or hypnotic habit-forming substances, or any derivative of any such substance which possesses the same properties.

(10) Requires the labels of non-official drugs (those not listed in the Pharmacopoeias and Formulary) to list the names of the active ingredients, and in addition to show the quantity or proportion of certain specified substances.

G.O.P. TO STUDY FEDERAL MEDICAL CARE PROBLEMS

Dr. Glenn Frank, Chairman of the Republican program committee, announced yesterday that the committee will consider the proper scope of governmental responsibility for medical care. This problem is to be studied at a round table discussion August third in Chicago.

"Every aspect of this vital and highly debatable question will be discussed in an objective manner by competent and experienced authorities," Dr. Frank said. "Health insurance in its various forms, voluntary and compulsory, will be presented by proponents and by vigilant critics. The end sought is a responsible scrutiny of a problem which is now of high national significance and which contains the possibilities both of great social advances and of great social errors."

Among those taking part in the discussion will be Dr. S. S. Goldwater, commissioner of hospitals of New York City; Dr. Arthur C. Christie of Washington, D.C.; Dr. John F. Peters of Yale university, Dr. H. L. Snyder of Winfield, Kansas, and Mrs. James E. Hollingsworth of New York City.

—Chicago Tribune, July 22, 1938.

Indiana University News Notes

With the rapid development and growth of the Department of Illustration at the Indiana University Medical Center, it has been found necessary to enlarge its quarters to occupy a considerable portion of the space formerly occupied by the Central Laboratory prior to its transfer to the Clinical Building. The Illustration Department is rapidly coming to the front as an integral part of the Medical Records of the University in that every unusual case is photographed at the time of its admission, during certain points in its progress, and at the time of discharge.

Pathological specimens are likewise coming in for their full share of photographs, and have provided a means of recording for research purposes a story that a thousand words would not describe. The staff of the Illustration Department includes James F. Glore, medical artist, Herbert Salinger, photographer, and Ira Craddick, assistant.

The following young doctors who received their M.D. degrees at the Indiana University commencement exercises last month have received internship appointments at the Indiana University Hospitals, Indianapolis: Henry Amstutz, Indianapolis; Joseph Aronoff, Youngstown, Ohio; George Balsbaugh, North Manchester; Leonard Blickenstaff, Lafontaine; George Byfield, Indianapolis; Jack Eisaman, Churubusco; Robert Ferguson, Indianapolis; Thomas Gill, Jr., Michigan City; Byron Kilgore, Indianapolis; John Kimmick, Indianapolis; Charles McCormick, Indianapolis; Sam Manalan, Gary; William Montgomery, Plymouth; Richard Nay, Muncie; Jed W. Pearson, Jr., Indianapolis; Gustavus Peters, Frankfort; James Scales, Lynnville; Richard Schug, Decatur; Ben Siebenthal, Bloomington; Stewart Smith, Indianapolis; Robert Speas, Whiteland.

Those appointed to the Indianapolis City Hospital are: Clarence Bunge, Indianapolis; Leon Chandler, Rosedale; Jack Dorman, Indianapolis; James Gosman, Jasper; Robert Johnson, Bloomington; Nelson Kauffman, Indianapolis; Edward Lidikay, Ladoga; Karl Mast, Angola; Roger Reed, Anderson; William Rossman, Greenfield; Francis Sheehan, Indianapolis; Tom Shields, Brownstown; Richard Stauffer, Fort Wayne; Victor Teizler, Indiana Harbor; Morris Thomas, Muncie; John D. Winebrenner, Muncie.

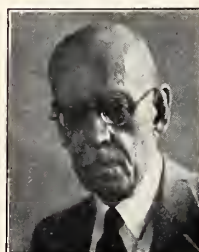
The Methodist Hospital will have the following I.U. internes: George D. Davis, Rushville; Joseph Riley, Chrisney; Ross Rissler, Indianapolis; Howard Romack, Greenfield.

The following will serve their internship at St. Vincent's hospital: Edgar Bridwell, Indianapo-

lis; Paul Connell, Indianapolis; Morris Davidson, Elkhart; Richard Emme, Harlan; William Garner, Indianapolis; John Glackman, Rockport; William Lybrook, Galveston; Joseph Quigley, Indianapolis; Benjamin Speheger, Bluffton; Norman Richard, Fort Wayne.

Richard Austin, Indianapolis, and Roscoe Yegelehner, Clay City, will be at St. Elizabeth's Hospital, Lafayette; William J. Miller, Valparaiso, and Milton Ort, South Bend, at Epworth hospital, South Bend, and Boyd L. Mahuron at Ball Memorial hospital, Muncie.

Other internship appointments are as follows: Arthur Adams, West Lafayette, Bridgeport City hospital, Bridgeport, Conn.; David Adler, Brooklyn, N.Y., St. Elizabeth hospital, Dayton, Ohio; Thomas Bauer, Lafayette, Philadelphia General hospital; James Dietrich, Bloomington, Akron (Ohio) City hospital; James Feffer, Brooklyn, N.Y., King's County hospital, Brooklyn, N.Y.; Burnett Forman, Indianapolis, Tacoma General hospital, Wash.; Lloyd Goad, Gary, Providence hospital, Detroit, Mich.; Keith Hammond, French Lick, U.S. Public Health Service; Alex Govorchin, Hammond, City hospital, St. Louis, Mo.; John G. Hancock, Indianapolis, Lucas County hospital, Toledo, Ohio; Thurston Harrison, Indianapolis, Johns Hopkins hospital, Baltimore, Maryland; Bruce Kendall, Indianapolis, U.S. Naval Service; Karl Helm, Washington, Milwaukee, Wis., General hospital; Donald Ladig, Fort Wayne, Providence hospital, Detroit, Mich.; Arnold Maloney, Salem, Freedman's hospital, Washington, D.C.; Woodrow Murphy, Indianapolis, Saskatoon, Sask., Canada; Rudolf Myers, Bloomington, Los Angeles County General hospital; Kenneth Neuman, Lafayette, St. Francis hospital, Evanston, Ill.; Wanda Olczak, South Bend, Mercy hospital, Oshkosh, Wis.; Samuel Oliver, Indianapolis, U.S. Naval Service; William Schnute, Evansville, University Hospitals of Michigan; Lawton Shank, Angola, San Diego County hospital, San Diego, Calif.; Birna Smith, Milroy, Good Samaritan hospital, Dayton, Ohio; Crystal Slick, Hollansburg, City hospital, Springfield, Ohio; Edward Smith, Petersburg, Cleveland City hospital, Cleveland, Ohio, and David Wiener, Newark N.J., Newark Memorial hospital.



Allan Hendricks

The "well done, good and faithful servant" tribute was tossed to another venerable staff member of the Indiana University Medical Center when members of the medical profession and the administrative heads of the center honored Allan Hendricks, retiring librarian, on June thirtieth. Mr. Hendricks has been in charge of the library at the center

since 1924, and he is not only credited with building the library into the eighth ranking institution of its kind in the country, but speakers at the dinner meeting praised his consistent courtesy, spirit of helpfulness, and thorough knowledge of his job. Dr. W. D. Gatch, dean of the Indiana University School of Medicine, presided at the dinner, and related that the library consisted of only 4,300 volumes and was receiving 79 periodicals when Mr. Hendricks was placed in charge in 1924. The library now has 30,000 volumes and receives 450 periodicals. Within the past year the library has loaned books to physicians as far east as New York and as far west as San Francisco.

Since 1924 Mr. Hendricks, assisted by Dr. William N. Wishard, has been collecting specimens—instruments, books, pictures, and manuscripts for a medical museum, as well as a collection of paintings, photographs and prints of medical men and subjects. Mr. Hendricks is the author of a number of articles dealing with subjects of interest to medical librarians. In speaking of him, Dr. Gatch said, "In all the years he has been connected with the medical school he has been the most popular man on the campus. . . . His name will always be recorded among those who have done much to make the medical school a success." Mr. Hendricks was presented with a wrist watch.

Miss Ruth McNutt, former private secretary to Dr. William Lowe Bryan, has succeeded Mr. Hendricks as librarian.

LEUKORRHEA (Gray)

(Concluded from page 410)

as a focus of infection, and may possibly have some relation to the development of carcinoma of the cervix. Treatment is, as a rule, dilatation and cauterization of the cervix. This will take care of the more superficial lacerations. With the larger lacerations trachelorrhaphy is indicated. With an enlarged and elongated cervix amputation may be indicated.

Carcinoma is usually associated with cervicitis since perhaps most women have cervicitis. It begins as a small white spot which may remain for years before proliferating, forming a small ulcer, and then more rapidly forming the large cauliflower mass. The cure of cancer rests with early diagnosis, as the woman with the cauliflower carcinoma may be helped by radium but never cured. This means that the small white spots and small ulcerative lesions must be biopsied to determine which are early cancer, to be followed by prompt and proper treatment. It must be remembered that only a small number of white spots are actually early carcinoma, therefore one cannot treat all small white spots as carcinomas. While radium is the best treatment for carcinoma of the cervix, it should be given only to proved cases, for a great deal of harm may come about with radium.

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Societies — Institutions

ADAMS COUNTY MEDICAL SOCIETY held a meeting in Decatur, June seventeenth. Dr. S. R. Mercer of Fort Wayne was the principal speaker, his subject being "Diseases of the Skin."

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY members met at K. of P. Hall, in Aurora, June twenty-third, to hear Dr. G. B. Jackson of Indianapolis talk on "Obstetrics." Dr. Jackson illustrated his paper with a motion picture on obstetrics.

* * *

HENDRICKS COUNTY MEDICAL SOCIETY met at Danville, June seventeenth, for a noon dinner. Dr. Bert Ellis of Indianapolis presented a paper on "Nasal Diseases and Repair of Injuries." The secretary reported that the society voted almost unanimously to repeat the government arrangement of financing indigent patients.

* * *

HENRY COUNTY MEDICAL SOCIETY members met at Newcastle, June thirtieth, with Dr. Robert Densmore of Cleveland, Ohio, as guest speaker. Dr. Densmore's subject was "Gall Bladder Disease." Attendance numbered twenty-seven.

* * *

MARSHALL COUNTY MEDICAL SOCIETY held a meeting at Plymouth, June fifteenth, to hear Dr. Charles P. Emerson talk on "Medical Diseases of Importance in the Future." Attendance numbered seventy-five. A golf tournament was played in the afternoon, the low score being turned in by Dr. C. M. Sennett of South Bend.

* * *

MIAMI COUNTY MEDICAL SOCIETY held a meeting June twenty-fourth, at the Miami County Hospital in Peru. Dr. Don D. Bowers read a paper on "Irradiation and Surgery in Cancer." Dr. E. N. Kime of Indianapolis read a paper on "Management of Readily Accessible Neoplasms in the Office and in the Outpatient Clinic." The hospital superintendent and trustees were hosts at a banquet for the members of the medical society and guests. Attendance numbered thirty.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY members met at the Home Hospital in Lafayette, June twenty-first. Dr. F. P. Hunter of Lafayette presented a paper on "The Blood Cells and Disease." Attendance numbered forty-five.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

Mrs. Augustus S. Kech, retiring president, said: "I shall carry in my heart the pleasant memories of my travels over this country from East to West and from the Canadian Border to the Gulf of Mexico. May I assure you that I have appreciated your hospitality, your loyalty, and your splendid spirit of cooperation."

Mrs. Charles C. Tomlinson, Omaha, Nebraska, is our new national president.

Mrs. George R. Dillinger reports from the San Francisco meeting held June 12-17: Registration, first day, 1,006. Flashes from auxiliary report: Cooperation with Women's Field Army of American Society for Control

(Continued on page xxii)

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A. S. Giordano, M.D., M.Sc.
Director

Agatha Wilhelm, M.D.
Asst. Director

(Continued from page xx)

of Cancer; study groups for study of effects of socialization of medicine; health essays by high school students (subjects and prizes under supervision of auxiliaries), "Highway Hazards" a favorite topic; promoting benevolent funds for doctors and their widows; student loan funds for medical students; exhibits encouraged.

Recent books recommended for study:

Economics and Ethics of Medicine, by R. G. Leland.
Disease and Destiny, by Ralph H. Major.

Rats, Lice and History, by Hans Zinsser.

Behind the Doctor, by Logan Clendenning.

Frontiers of Medicine, by Morris Fishbein.

American Doctor's Odyssey, by Victor Heiser.

Health Questions Answered, by W. W. Bauer.

Shadow on the Land, by Thomas Parran, Jr.

Riders of the Plague, by James A. Tobey.

Microbe Hunters, by Paul de Kruif.

Health Education of the Public, by Bauer-Hull.

Public Health Education in the Community, by Ira V. Hiscock and Co-Authors.

Simple Lessons in Human Anatomy, by B. C. H. Harvey.

Why Keep Them Alive, by Paul de Kruif.

A Woman's Best Years, by M. Brian Wolfe.

Mrs. Vilate Raile of Utah prepared a book cleverly illustrated in color. Title "Another Goose—Quacks." One nursery rhyme reads:

Mary met another quack
Who didn't know his onions.
He amputated both her legs
To cure a pair of bunions.

Medical plays are to be written subject to approval of the Advisory Boards. Clipping Bureaus are established. Historical material is collected and biographies of pioneer physicians contributed by each county being censored by local county society. These are to be sent to the state historian for permanent record.

"Gratitude is the fairest blossom that springs from the soul and the heart of man knoweth none more fragrant."

The District of Columbia Auxiliary recently dedicated a bronze marker at Alexandria, Va., in memory of Dr. Elisha Cullen Dick, a friend and physician of George Washington.

Periodic Health Examinations have been featured by the Virginia organization as a special project. Washington (State) sends over 2,000 copies of Hygeia to lay organizations. Alabama—Lettie Daffin Perdue Scholarship given to a physician's daughter at Alabama College. Oregon—a junior auxiliary organized for wives of medical students. California has a news-sheet, *The Courier*, mailing 1,650 copies of each number to all members. Tennessee urges auxiliaries to center their efforts each year on some definite objective. This encourages a decided tendency toward unity, and county auxiliaries are to add local projects.

The *Texas Journal* devotes 31 pages to activities of the Auxiliary and reports 500 subscriptions to Hygeia. Texas has 2,049 members. Louisiana observes "Doctor's Day" by sending boutonnieres to each doctor.

Wabash County officers: President, Mrs. G. M. La Salle; vice-president, Mrs. A. J. Steffin; secretary, Mrs. J. W. Seward; treasurer, Mrs. J. G. Kidd.

St. Joseph County officers: President, Mrs. N. S. Lindquist; vice-president, Mrs. Walter Baker; treasurer, Mrs. M. D. Wygant; secretary, Mrs. K. E. Selby; corresponding secretary, Mrs. Harry Sandoz.

A handbook for auxiliaries may be purchased from Mrs. E. D. Lamb, Klamath Falls, Oregon, for 40 cents. National News-Letter, \$1.00, from Mrs. James P. Simonds, 25 E. Walton Place, Chicago. The press chairman recommends the purchase of the above by each auxiliary.

MRS. W. F. HUGHES,
Press and Publicity Chairman.

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES

Monthly Report, June 1938

Disease	June 1938	May 1938	April 1938	June 1937	June 1936
Tuberculosis	159	204	228	247	128
Chicken pox	150	120	311	139	67
Measles	893	2,158	5,745	2,148	40
Scarlet Fever	190	257	597	320	222
Smallpox	105	134	351	61	15
Typhoid Fever	23	15	29	9	16
Whooping Cough	72	52	128	297	119
Diphtheria	38	54	95	29	27
Influenza	13	8	48	39	33
Pneumonia	53	45	90	69	65
Mumps	52	59	131	73	82
Meningitis	3	2	6	7	0
Trachoma	4	0	15	0	6
Undulant Fever	3	5	11	0	0
Bacillary Dysentery	4	0	0	0	0
Impetigo	2	0	0	0	0
Tularemia	2	2	2	0	0
Silicosis	1	0	1	0	0

"DOC QUIZ" ANSWERS—

Questions on page 426

Answer 1: None.

Answer 2: Urine—for sugar. Feel for pulsation of dorsalis pedis and posterior tibial artery.

Answer 3: M₃T₃IA: Measles, mumps, malaria; typhoid, tuberculosis; influenza; agranulocytic angina.

Answer 4: Give 1/4 grain by hypodermic and follow 20 minutes later with a hypo of 1/150 grain of atropine. Repeat both in 30 or 60 minutes if necessary.

Answer 5: Calcium chloride or calcium gluconate. Five c.c of a 10% solution of calcium chloride given intravenously will frequently relieve colic faster than morphine and allow a small stone to pass if one is present.

Answer 6: If the trouble is due to an insufficient amount of male sex hormone, testosterone propionate may help. It must be given in adequate dosage, and frequently enough. It is quite expensive.

Answer 7: In no way. If pyuria persists in an infant or child for more than four or five weeks, the patient should be cystoscoped and the cause of the trouble found. Symptomatic pyuria demands investigation.

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FOR SALE: Dome model McCurdy safety gas-oxygen machine, in good condition. Address J. F. Murphy, M.D., 420 J. M. S. Building, South Bend, Indiana.

FOR RENT: Excellent location over modern drug store; offices that were occupied by the late Dr. C. F. C. Hancock for forty-six years. Dr. Hancock was a prominent practicing physician in Jeffersonville and Clark County for forty-nine years. Nothing for sale. If interested, call or write Mr. A. C. Pfau, 114 West Riverside Drive, Jeffersonville, Indiana; telephone 133.

YOUNG PHYSICIAN WANTED: A young physician is wanted in Star City, Indiana; town of 600 population. Good farming community; hospital near; good schools and churches. Furnished office for physician for rent reasonably. Address Box 65, Star City, Indiana.

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SEPTEMBER, 1938

NUMBER 9

INCIDENCE AND PREVALENCE OF DISEASES OF THE HEART

HAVEN EMERSON, M.D.

New York City

Heart disease is not a reportable cause of illness. In other words, sanitary law or local ordinance nowhere in this country or abroad puts an obligation upon the physician or medical institutions to notify the health officer of city, county or state of a diagnosis or suspected occurrence of heart disease in a patient. For this reason, and because there is no other source of information for the routine or systematic recording of disease for a community or population group as a whole, we do not know the incidence of heart diseases except as these conditions are entered upon certificates of death.

We have published reports from the practice of individual physicians, from institutions for the sick, from routine medical examination of large samples of the wage earners of the population for purposes of civil service, military employment, or as a screening process in the selection of employees and their periodic health supervision in industry, transportation, etc. We have other large samples of men and women of college age and still more extensive records of children of school age, and also of expectant mothers, and certain categories of insured persons. We have, also, published records of the causes of all illnesses of a disabling character in large samples of urban and rural populations in the form of sickness surveys.

It is primarily from the occurrence of deaths attributed to disease of the heart, and from samplings of these diseases in characteristic groups of the population, that we infer, or calculate, or assume the incidence of heart disease.

A few facts appear to be well established and consistently recorded from the experience of most occidental nations, particularly from England and Wales, Canada, Germany, Scandinavia, and the United States.

Heart disease, if we may for the moment deal with it as if it were a single clinical entity instead of a group of disease conditions widely dissimilar

in origin, cause and natural history, is now and has been pretty generally for the past twenty years the cause of death most frequently reported, while prior to 1915, and in certain large population groups even to more recent date, tuberculosis had for a generation or more been the most frequent cause of death.

To the obvious question, "Has tuberculosis been less prevalent or heart diseases more so?" we must answer yes in both instances. The consistent and continuous reduction in the incidence from tuberculosis over the past thirty years, and the equally striking rise in the number of deaths from diseases of the heart in the same period have both been factors in putting heart diseases at the top of the list of causes of death when these are arranged in order of frequency.

To the unthinking, to the laity in general, to the newspaper writers, and in the understanding of a multitude of so-called health educators and promoters of public campaigns for community health, this new eminence of heart disease in the death list has meant simply that heart disease is an increasing threat to the health and survival of contemporary society, and constitutes a real problem for public health officers and private health agencies, for government, society and philanthropy. It is even widely stated that this high frequency of deaths from heart diseases is the direct and necessary sequel to a life of increasing strain upon body and mind, a penalty for the ever rising pace of life, and a deplorable evidence of an unfavorable balance between quality and duration of life.

If one reads the record of rising death rates for the expanding United States Registration Area, or for a large state population such as that of New York, or for the City of New York, a fear for human survival seems not unreasonable.

The death rates per 100,000 of population in the expanding United States Registration Area

from diseases of the heart rose as follows from 1900 to 1935:

1900—	131.9
1905—	157.1
1910—	158.8
1915—	165.1
1920—	159.3
1925—	185.5
1930—	213.5
1935—	234.9

The rates from the same causes in the State of New York for the same years were:

1900—	133.5
1905—	160.9
1910—	166.0
1915—	221.9
1920—	226.6
1925—	259.3
1930—	277.3
1935—	311.5

The comparable rates for the City of New York were:

1900—	118.0
1905—	140.3
1910—	174.5
1915—	213.7
1920—	213.2
1925—	247.5
1930—	255.7
1935—	276.6

(These figures are from an historical table of rates from 1900-1936 in the New York State Health Department Annual Report of 1936.)

Certainly these upward trends have been of the same order in these population groups, and similar figures can be quoted from practically all of the larger states and cities of the United States, Canada and the Western European nations, over a period when unexampled gains have been made against most of the preventable diseases and conditions susceptible of social and sanitary control.

In fact one may, without stretching the evidence too far, claim that the more effective the standard services for public health in a community the higher will be the cardiac death rate.

The simplest and most reasonable explanation for most if not all of the contemporary increase in heart disease as a cause of death is to be found in the shift in the age distribution of the population resulting from a reduction in the birth rate and a fall in the general death rate. The chief triumphs of preventive medicine, whether applied by the private practitioner or by the services created at government expense through health departments, have been in controlling diseases of infection and nutrition among infants, children, and in the first two decades of adult life. The resultant increase in the average age at death has been marked, and with every ad-

vance in protecting the lives of infants and children from the communicable diseases and of young people from typhoid fever and tuberculosis, there has been an extension of the average duration of life into those decades after sixty when the great majority of cardiac deaths occur.

The similar though less extreme increase in the death rates from diabetes and cancer and of arterio-sclerosis have been the result of the same favorable factors which have so markedly lowered the infant mortality rate, the deaths from diarrhea and enteritis, those from the acute communicable diseases of childhood, diphtheria especially, and of tuberculosis, more particularly in the first three decades of life.

With a marked increase in the percentage of the population in the older age groups the death rate from heart diseases has increased. However, there are other factors of importance, among which has been a shift in fashions of medical terminology and practice in attribution of deaths caused by some aspect of the cardio-vascular-renal syndrome. With the past three decades has come a distinct tendency on the part of clinicians and pathologists to name the lesions of the heart as primary causes of death and to relegate to contributory, accessory or secondary causes the coincident and associated lesions of the arteries and kidneys.

If we study the assembled death rates from organic diseases of the heart, chronic nephritis, and arteriosclerosis as a group we find little or no significant change in the trend over the past twenty years at least.

However, when we try to correlate the death rates from heart diseases with those from chronic nephritis and arteriosclerosis we find that as the former rises the latter two have fallen.

In fact, there is a very good cause for hopefulness in the record of heart diseases as causes of death in the past thirty years if we can use as statistically significant that of the City of New York.

Even though the registered deaths from heart disease have increased at a faster rate than has the population, and while the combined deaths from cardiac, renal and arterial diseases have remained about the same for the past thirty years in proportion to the population, and while deaths attributed to apoplexy, Bright's disease and senility have decreased in number, it is quite clear that the age specific death rates for heart diseases have fallen since 1901 in every age group and for both males and females in New York City, although these decreases have not been of equal magnitude in all decades of life.

The greatest reduction has occurred in those decades of life where rheumatic heart disease is commonest and most commonly fatal, and least in the decades over fifty years of life.

The following abstract from the records of the New York City Department of Health will make this clear:

DEATH RATES FOR MALES FROM DISEASES OF THE HEART
PER 100,000 POPULATION AT AGE SPECIFIED.
NEW YORK CITY

Age Groups	1901-03	1929-31	Percentage Reduction
0-4	60.3	19.4	67.8%
5-9	5.8	2.5	56.9
10-14	2.8	1.7	39.2
15-19	4.8	2.6	45.8
20-24	7.3	3.4	53.4
25-29	9.5	3.8	58.0
50-54	29.2	22.0	24.6
55-59	38.8	32.0	17.5
60-64	51.4	44.7	13.0
65-69	69.9	62.0	11.3
70-74	95.8	84.3	12.0
75-79	141.0	120.7	14.4
80-84	175.9	170.9	2.8
85 and over	252.3	242.8	3.7

It is apparent that the greatest improvement has been in the age group in which heart disease plays a small role among the causes of death, and the least change occurred at ages where the proportions of the population are increasing and heart diseases are the most frequent causes of death.

The reported increase in the death rate from heart diseases for the population as a whole is not the true expression of the facts, owing to the lack of comparability between the age distribution of the population now and that of 1900. If we should reason honestly from the facts we must limit our quotation of rates to those of some particular age group or groups and not use the general death rate from heart diseases at all ages.

Even if it is actually true that there is some downward trend of age specific death rates from heart diseases at each age group, heart diseases, whether congenital, rheumatic, syphilitic, toxic, bacterial, or arteriosclerotic, constitute a major cause of acute and chronic invalidism, concerning the exact prevalence of which we have but fragmentary reliable evidence.

Probably we shall have to be satisfied for some time to come with approximate estimates only for the prevalence of heart disease of different forms in all varieties of population groups, and at least until some acceptable routine reporting of patients under the home, hospital, or out-patient care of physicians is developed by a central city or state authority capable of accurate tabulation and reporting of all illness.

The expense of such morbidity reporting has hitherto been prohibitive, and the lack of obvious direct benefit to the sick or to those who care for them from such routine statistical analysis of disease prevalence have been sufficient reasons for postponement of such projects to the future.

Nevertheless there are useful facts to be had which, if discreetly interpreted, will add materially to the physician's understanding of the natural history of heart disease as a population, a social or a mass problem.

For instance, the widespread use of the prenatal examination of the expectant mother has given us a reliable indication of the prevalence of heart disease in women of the child-bearing age (15-45) taking into consideration that it is not a heart disease due to pregnancy that we are measuring, but its occurrence in a sex and age group which we can safely apply to all women of similar age.

Experience of different observers reveals from one to three per cent of heart disease in this age group of women, the lower figure expressing the amount of serious or organic heart disease, and the higher the incidence of all varieties of disturbance of the heart. While pregnancy is not, except in rare instances, an apparent causative factor of the heart disease in these cases, the mortality among them attributed to the heart affection is high, from five to ten percent of maternal deaths connected with pregnancy and the puerperium being among those found to have a complicating heart disease. However, it must be remembered that the management of and prognosis for the pregnant cardiac does not differ materially from that of the non-pregnant woman of the same age, condition of life and stage of the heart lesion.

Congenital heart disease is the form which causes the highest cardiac death rate among young children, the experience in New York City being that the death rate from heart disease in children under five years of age is higher than in any other five year period of life until after sixty-five years of age. While acute rheumatic fever and some of the acute communicable diseases of early life share in creating this high cardiac death rate among young children, it is congenital diseases of the heart that play the dominant role in the early years.

A conservative estimate of the true incidence of congenital heart disease in the new-born, among whom the mortality is high, is 1.5%. In the adult population this incidence is much lower, as only a few recognizable or important cardiac abnormalities of valvular type survive the hazards of childhood, such as the intercurrent infectious fevers. It has been estimated that in men and women up to the age of forty-five years congenital heart disease can be found to the extent of 0.027 percent, or one in each 3,704 persons between fifteen and forty-five. There is no statistically adequate record of incidence of congenital heart disease for each quinquennium of life in relation to the number of individuals living at the respective ages.

For children of obligatory school age (6-16) we have a remarkably accurate series of observations extending over not less than five million such children in this country and in England carefully examined for the express purpose of determining the presence of any abnormality of the heart.

In many of these series of records it appears

that the general practitioner employed in making health examinations of school children reported 1.27 percent with a heart affection, whereas the specialists at cardiac clinics to whom these children were then referred for expert opinion reported that the true incidence of organic heart lesions was not over 0.75% and in some series as low as 0.37%.

While there may be significant differences in regional incidence of acute rheumatic fever to explain the variations in the reported percentage of school children with organic valvular heart disease in different cities, it is more likely that the lack of uniformity of record is due chiefly to differences in the diagnostic methods and refinements of criteria used by the various observers.

Experience for the last twenty years with the school children of New York City makes it appear probable that appreciable heart disease among children of all economic levels in this community, of a wide variety of races, and in the age groups six to sixteen years, has an incidence of less than one percent, and more likely not over 0.75% of organic heart disease, and of the children so afflicted only about 0.85% have heart conditions of such severity as to make school attendance inadvisable.

In studies in New York and Boston it appears that the incidence of heart disease among school children increases from six to thirteen or fifteen years of age, as would be expected from our knowledge of the distribution of acute rheumatic fever and its sequellae.

Evidence as to the probable incidence of heart disease among adults must be built up from a multitude of special studies, none of which by itself is adequate in range of experience, or well enough controlled statistically to be relied upon as authoritative.

In the larger cities of the United States it will be found that in general hospitals, both those municipally operated for the non-paying patient and those under voluntary auspices, about ten percent of the beds that are occupied are in use for heart patients, and that about five percent of patients admitted to the adult services are for heart disease in one or another stage. In other words heart patients are apt to have to occupy ward beds in general hospital medical services on the average twice as long as other patients.

One fourth of general dispensary patients have some heart affection. Among patients served by visiting nurse associations one and a half percent of those visited and 2.3% of all visits made are for heart patients.

From various statistical studies of illness prevalence and deaths in rural and urban populations in the United States it appears that there are about ten times as many heart patients as there are deaths from heart disease recorded within the year.

In rural medical practice in certain counties in New York State, 4.2 percent of all patients

under the care of the general practitioner had a disease of the heart (among 98,069 cases of illness). In the total population of New York State it has been estimated on the basis of these studies that the incidence of heart disease varies, according to the age distribution of the people, from 2.7% to 4.0% of the total population.

Experience with men engaged in military service in the Army and Navy of Great Britain during the World War was that 10.2% of those discharged and pensioned during the war had some form of cardiovascular disease and that heart diseases constituted 16.6% of all medical conditions cared for in the military forces other than wounds and injuries.

Taking into consideration the samples of population according to age and sex for which we have reasonably accurate, though fragmentary, evidence on the prevalence of heart disease, we are justified in making a tentative estimate that such diseases exist to a degree medically recognizable and requiring some extent of medical observation and management in from one to three percent of the total population.

From the point of view of public health, that is the application of the science of preventive medicine by government for social ends, the diseases of the heart fall into several general categories.

The great majority of persons affected with or dying from heart diseases suffer from senescence or arteriosclerosis, that is the effects of those tissue and resultant functional changes in the heart and blood vessels which appear to be inherent in the process of aging. At present we do not know how to affect favorably, postpone the onset, or delay the ultimate result of this form of heart disease except by the application of the rule of moderation in all things, which is wise hygienic advice for all persons, particularly after middle age, and by the avoidance of disproportionate weight to height and age, especially after forty-five years of life. About 75 to 80 percent of deaths from heart disease fall into this general category and are not in any reasonable sense of the term likely to be affected by public health services.

Syphilitic heart and aortic disease is, of course, preventable and has been decreasing in amount in the past twenty years, and should ultimately disappear as a cause of disease and death with the increasing effectiveness of our present resources for early and accurate diagnosis of syphilitic infection and the more nearly universal use of effective specific therapy, even though social control of sources of syphilitic infection may not be substantially reduced by exercise of the police power of the health authorities. Deaths from syphilitic disease of the heart may constitute as much as ten percent of all cardiac deaths, but the figure is more likely to be five percent at present.

Rheumatic heart disease is responsible for most

of the remainder of cardiac deaths. While much has been done by the early, conservative and protective management of rheumatic carditis, as if it were a chronic or subacute sepsis, or infection almost of the chronic character of tuberculosis, to increase the likelihood of survival and assure a greater duration of life, and this can be reasonably promised to those, particularly children, who have the early and competent care of experienced physicians, still there is no evidence that prevention of rheumatic infection or of the fatal outcome can be secured by any resources now at the command of official or voluntary health agencies.

Without greater knowledge of the etiological cause or of individual susceptibility and the contributory factors of environment, contact, etc., we cannot justify any official procedures intended to

reduce exposure to and infection by rheumatism, whatever the causative factor may finally prove to be.

We must take courage from the fact that heart diseases are not increasing as causes of sickness and death except as the population contains a higher proportion of persons whose age is the main factor in the causation of such disease and death.

To have achieved such health protection of infancy, childhood, and the early decades of maturity as to extend the average expectancy of life is a cause of satisfaction, not of regret.

We need not fear heart disease but must study it more intensively so that effective preventive measures may be developed.

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THE QUANTITY AND QUALITY OF LIFE

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Prevention of disease exceeds in importance all other services of medical care because it is directed to all the people. Next in importance is the recognition, at the earliest possible time, of the beginning of disease or evidences of impairment due to age. Only in this way is early and effective treatment possible, and the largest number of recoveries or greatest prolongation of useful life attained. Some chronic disease, with permanent impairment, cannot be prevented. However, with intelligent medical care, much salvage of life, prolonged and continued in effectiveness despite impairment or crippling, is still possible. As the chronic degenerative conditions develop in the mid-period of life, when training, experience, and mature judgment are coming to full fruition, much of the thinking, planning, and struggling with world problems is done by men already having some impairment. In more advanced stages of disease, fewer recoveries are possible. There is more damage, less prolongation of useful life, and more often medical care is required to make what is left of life livable. In end-stages of destructive disease, the physician may be able to do little more than modify the course or make the last sad episode less terrible.

The effectiveness of a life and its contribution to world thought and progress, the happiness, spiritual and physical comfort, cannot be measured but may be described as the quality of life. The summation of the quality of life, conserved to the whole group as a result of the varied services of medical care which prolong life and make it happy and effective, exceeds all methods of human evaluation. The prolongation of life, as expressed in units of time, might well be referred to as the quantity of life. The total years lived by the individual, and collectively by the group, is the

sum of the results of all the factors that affect the group. The measurement of quantity is serviceable in that it may be expressed in numbers from which rough estimations of the effectiveness of medical care in prolongation of life may be drawn.

The above is not intended to be a dramatic review of everyday medical experience, but is emphasized with the hope that it may be thought-provoking. Obviously, in health and in disease, in all ages and in all human experience, medical advice may be helpful and its results evaluated. It is unfortunate that the physician, in the popular mind, has been identified only with the care of the individual in major sickness. This is probably due to the publicity given new discoveries and advances in methods of diagnosis and treatment. The individual has to a great extent failed to recognize the service which the physician might direct to his individual problems of health maintenance. Especially has the importance of recognizing unhealthful tendencies and the beginning of physical and mental abnormality and disease been too little understood by the layman.

Preventive medicine has led to the prolongation of life to the greatest number of individuals, because directed to the whole of the population. This has been accomplished largely by control of water and food supply, vaccination against certain diseases and isolation and quarantine of communicable types. These measures have become so general in their application and so much a part of the routine life that perhaps few fully realize the medical research, the constant watchfulness of medical men, and the personnel and organization engaged for their protection. Modern civilization could not exist without them. General measures of health and personal hygiene are taught in the

schools, and in the school ages a certain amount of health supervision is provided. But the adult individual derives his health information largely from newspapers, health columns, health or physical culture magazines. Sometimes, unfortunately, from unreliable publications or from participation in various faddist health activities. Apparently this condition exists because the individual has never been taught to seek examinations and advice as to his individual state of health and manner of living unless he believes that he is suffering from an illness of some importance.

The value of periodic health examinations has been questioned by some because it is pointed out that the diseases which most frequently cause death, often suddenly, cannot be diagnosed before they have become clinically recognizable. However, neither is their beginning in most cases heralded by the appearance of symptoms which the patient may recognize or heed sufficiently to cause him to consult his physician. For example, the cardiovascular-renal diseases, now among the greatest causes of death, exclusive of the pain-producing types, most often do not give the patient evidence from which he may recognize the onset at the earliest time without examination.

Termination of life must not be confused with beginning of disease. The unpredictable occurrence of cerebral hemorrhage or many acute cardiac conditions is admitted, but they must be recognized as modes of death following variable periods of established disease and not primary early disease or events unrelated to previous history and findings. It is the early recognition of the underlying disease which makes salvage of useful and enjoyable life possible, and adds to the total of conservation represented in the quantity and quality of life. There are no statistics available by which the saving in each type of disease may be measured. A standard technic of examination, an investigation of histories of life, and the causes of death throughout a sufficient period of years would be necessary in order to properly estimate the value of this closer health observation. A better knowledge of the factors leading to abnormal physiology or beginning pathology might be gained as a result of such observation. Only in this manner may the causes, the manner of beginning, and the life history of many diseases be determined.

The tell-tale hypertension, diminution of cardiac reserve, evidence of beginning kidney impairment are well known, but who has made a sufficient number of examinations, or tabulated a sufficient amount of physical findings or detailed history antecedent to these developments to be able to recognize and evaluate all the various factors which may contribute to the development of that condition? Who can say that in an individual case the early appearance of the condition is not preventable or postponable until such time as the inevitable processes of age bring about such deterioration? Information pointing to possible

measures to be taken in the best interests of the individual can come only from repeated careful physical examinations of the individual, an appraisal of his health inheritance, physical and mental, and the various factors evident in his manner of life and environment prior to, as well as at the time of the first signs of disease. The psychiatry accompanying prolonged illness is known, but the psychology of early disease has had too little attention. It must be admitted that the occurrence of many psychiatric conditions are at present unpredictable, but progress should be made in reducing this number.

Life insurance companies of the United States declined 335,000 applications for ordinary life insurance in 1937. How many of those who were refused suspected that they were not acceptable for life insurance is, of course, not known. Experience indicates that far the greatest number believed themselves to be in good health. It is impossible here to go into the statistical evidence accumulated by insurance companies as to the adequacy of a single, not too complete, examination in determining those who may or may not be considered to have a normal life expectancy. It is noteworthy that their records are based upon a single physical estimate made at the time of acceptance of the individual for insurance. All age groups from ten to seventy years are included. There is no advisory service as to manner of living or avoidance of exposure to various factors which might shorten life. The results are impressive: Excluding accidents and unpredictable acute infectious diseases such as pneumonia, the greatest killer, but including the circulatory failures common to the older group, the relative incidence of first and second year death claims furnishes conclusive evidence that there is something determinable and of value in the ordinary life insurance examination. The Metropolitan Life Insurance Company in a recent report commented upon organic diseases of the heart, now an outstanding and increasing cause of death: "Of especial importance is the promotion of the periodic health examination of persons in middle life. Many cases of heart lesions in their early stages may thus be detected, so that the affected individuals are enabled to derive the benefits of prompt treatment and suitable alteration in their mode of life." It is not stated upon what studies this comment is based.

PURPOSE OF HEALTH EXAMINATION

The purpose of the health examination goes beyond the search for abnormalities at the time of examination, and carries its greatest value in the carefully planned advice directed to the special needs and problems of the patient and based upon the history and findings. However, the history must be seriously considered and the examination carefully made. The patient must be willing to discuss his habits and manner of living, as well as his physical symptoms.

The development of a technic in making and recording the examination is necessary. So that subsequent findings may be recorded, conclusions and advice must be noted. Patients should be advised in simple and understandable terms. Physical findings which cannot be understood by a layman are of no value to him, and tend only to confuse and perhaps frighten. Instead, he needs to know in general the state of his health, what he should do and why, and what restrictions, if any, should be imposed. It is sometimes surprising to the examiner, and always helpful, to have the patient repeat to him his understanding of the advice given him. It has been said by some physicians that health examinations make patients hyper-health conscious and neurotic. This does not seem to be borne out in fact in any large number of individuals. True, such neurosis occasionally appears, but such an individual usually has phobias or is fixed upon some health obsession before the physician is consulted. Some are frankly psychotic and need appropriate treatment. Many others are already neurotically health conscious and follow abnormal paths, strange cults, or drift into pathologic avenues under sexual promptings. These need advice and guidance along normal lines.

Preventive medicine today offers great opportunities to add to the quantity and quality of life, and in this field the physician in private practice in his office with facilities easily accessible can furnish the best service the world can provide. With eight per cent of the population of the United States now above sixty years of age, and an estimation approaching twenty-three per cent by 1980, geriatrics becomes of increasing interest. It is evident that much attention must be given to the medical care of the degenerative diseases of this older age group.

To the physician who has never given attention to health examinations there is a world of new medical interest in prospect in the study of variations in physiological processes before so much of the normal has given place to pathological deterioration. This is especially gratifying if restoration is still possible. There is no keener pleasure than that reflected by the individual who feels that he is keeping happily and physically fit under your supervision.

Looking at medical care in its broadest application to the public, sickness prevention through routine health examinations including review of psychological, social and economic factors, as well as physical findings is a very necessary part of medical care if the service offered is to be complete.

The facilities for routine medical examinations are here: the physicians and laboratories are available. The costs are not prohibitive. These facts need to be emphasized. Physicians should build into their office practice a means of making appointments in advance, three, six months, or yearly intervals, at which time the individual will be reminded of his appointment for a health examination. Education of the public is necessary in order to establish routine health examinations and the service must be popularized. Socialized medicine has not accomplished it. There are more and better measures of preventive medicine being practiced in America today than in foreign countries where such service is free, in promise, but in fact difficult to obtain in desirable quality. Having destroyed the status of the general practitioner and debased the quality of his work through destructive types of sickness insurance, they are now beginning to recognize the need of capable general practitioners for it is the general practitioner who first sees the beginning of disease.

The confidential and sympathetic relationship between patient and physician is necessary to personal advice in which physical and mental states, social and personal relations, domestic stresses which only the physician may hear, all appear as factors to be reckoned with. These relationships cannot be created by economic subsidies or forced by legislation, but are inspired by mutual friendly interests and confidence, and live upon a basis of understanding. Here is the personally selected private physician at his best and in greatest service in adding to the quantity and quality of life. No political physician, governmental clinic or hospital can take his place. The Indiana State Medical Association has for several years past approved and advocated periodic health examinations and the inclusion of this subject in its program of The Indiana Plan of preventive medicine is consistent with that position.

IN THE CONSIDERATION OF ANNUAL PHYSICAL EXAMINATIONS AND HEART DISEASE, THE "INDIANA PLAN" SUGGESTS:

1. Educate physicians in better recognition of heart disease.
2. Teach the newer methods of studying functional capacity of the heart.
3. Teach the seriousness of "mild" infections as a background for heart crippling.
4. Teach the role of weight, heredity and environment in the production of hypertension.
5. Educate the physician and layman as to the seriousness of rheumatic infections.
6. Continue to emphasize the role played by syphilis in the problem of heart disease.
7. Train heart cripples of all ages in pursuits that permit them to accommodate their defects.
8. Educate physicians and the public in the importance of periodic examinations.
9. Urge the need for careful periodic examinations after middle life.
10. Stress the need for certain laboratory and x-ray studies at regular intervals: urinalysis, serological, electro-cardiographic and similar laboratory procedures.

PROGNOSIS IN BUNDLE BRANCH BLOCK*

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Several large series of cases of bundle branch block have been analyzed as to type, etiology, and prognosis. Graybiel, Ashton, and Sprague¹ analyzed 395 cases from the Massachusetts General Hospital, of which 308 were followed, and reported that the average duration of life after discovery of block was 1 year and 2 months. Sampson and Nagle² analyzed 269 cases from the University of California Hospitals, and reported a high fatality in a one-year period followed by a diminution in the case fatality rate. A small but representative series from the Indiana University Medical Center will be discussed in this paper.

In a review of 3,243 abnormal findings in the electrocardiograms of approximately 2,000 cases studied at the Indiana University Medical Center from 1929 to 1937, bundle branch block was found in 33 instances.

A short study of these cases has been made with regard to frequency of type of cardiac diagnosis, age, sex, type of block found, and survival.

Following the classification employed in Paul White's text "Heart Disease,"³ we have divided bundle branch block into typical left, typical right, and atypical bundle branch block. Following the work of Wilson⁴⁻⁵ and others we have designated the left type as that in which the principal deviation of the QRS complex is up in lead I. As cases

of atypical type we included all instances of QRS complexes with a spread of 0.12 sec. or more without the typical appearance of classical bundle branch block.

One case in which a diagnosis of bundle branch block had been made, and which was later rejected because it showed shortening of the P-R interval, was found in a 16 year old girl with a normal heart otherwise and multiple congenital abnormalities, and fits in characteristically with the congenital abnormality in conduction noted by various authors.⁶ The patient is living and has no cardiac complaint 5 years after discovery of the unusual electrocardiogram.

Of the 33 cases of bundle branch block, all except 2 have been followed to October 1, 1937. No trace could be found of 2 patients. One patient is reported dead, cause, time, and place unknown. Three patients died of intercurrent disease, one from cerebral hemorrhage, one from carcinoma of the pylorus with metastases, and the third with melanotic sarcoma and multiple metastases (not in the heart) proved by autopsy.

Necropsy was secured in 10 cases. It confirmed the cardiac diagnosis in each.

It is perhaps interesting to compare the survival from the time the block was found with the survival from the date of appearance of the first symptom of cardiac disease.

Of the 33 patients only 6 are known to be still alive. One of these had myxedema heart, with normal findings after administration of thyroid. One had no other evidence of heart disease and

*From the Department of Cardiovascular Disease Indiana University Medical Center, Indianapolis, Indiana.

1. Graybiel, Ashton, and Sprague: *Amer. Jr. Med. Sci.* 185:395, 1933.

2. Sampson, Nagle: *Amer. Jr. Med. Sci.* 191:88, 1936.

3. White, Paul: *Heart Disease*, 2nd ed., MacMillan, 1937.

4. Wilson, et al: *Jr. Clin. Investig.* 9:15, 1930.

5. Wilson, Macleod, Barker: *Am. Heart Journal* 7:305, 1931-32.

6. Wolferth and Margolies *Am. Heart Journal* 8:297, 1933.

Cardiac Diagnosis	Cases	Ages Ave.	Limits	Types			Sex	
				Right	Block Left	Atypical	Male	Female
1. Arteriosclerotic heart disease.....	11	64.5	42-77	3	2	6	10	1
2. Coronary Occlusion.....	4	64.7	60-68	....	1	3	3	1
3. Hypertens. Cardio vasc.—Renal Disease...	3	51.6	46-59	1	2	....	....	3
4. Toxic Group.....	6	.....	.....	.....	.....	.....	.....	.....
a. Thyrotoxic (1).....	.....	70	.....	.....	.....	1	.....	1
b. Myxedema (1).....	.....	20	.....	.....	.....	1	.....	1
c. Diphtheria (1).....	.....	6	.....	.....	.....	1	.....	1
d. Amebic Abscess (1).....	.....	29	.....	1	.....	.....	1	.....
e. Eclampsia (1).....	.....	49	.....	.....	.....	1	.....	1
f. Acute yell. atrophy of liver (1).....	.....	.....	.....	.....	.....	1	1	.....
5. Rheumatic Group.....	.....	45	.....	.....	.....	.....	.....	.....
A. Chronic Valvular.....	3	49, 61, 26	.....	.....	2	1	3	.....
B. Active.....	1	14	.....	.....	1	.....	1	.....
6. Subacute Bact. Endocarditis.....	2	40-35	.....	.....	2	.....	2	.....
7. Luetic Ht. Dis.....	2	50-52	.....	.....	2	.....	2	.....
8. No other evidence heart disease.....	1	53	.....	1	.....	.....	1	.....
TOTALS	33	.....	.....	6	12	15	24	9

SURVIVAL FROM TIME BLOCK FOUND

Cardiac Diagnosis	2 Wks. or Less Dead	2 Wks.- 1 Yr. Dead	1-2 Yrs. dd.	1-2 Yrs. liv.	2-3 Yrs. dd.	2-3 Yrs. liv.	After 3 Yrs. dd.	After 3 Yrs. liv.
1. Arterioscler. Group (7).....	2	...	...	1	1	...	1	2
2. Coron. Occlusion (4).....	2	1	...	1	...	...	...	...
3. Hyper. Car. Vas. Ren. (3).....	...	2	1	...	...	...	...	...
4. Toxic Group	Recovered normal EKG on Thyroid							
a. Myxedema (1).....	4	...	...	...	...	...	...	1
b. Severe Terminal (4).....	4	...	...	...	...	...	...	...
5. Rheumatic Group								
A. Chronic (3).....	...	3	...	...	...	...	...	...
B. Acute (1).....	...	1	...	...	...	...	...	...
6. Sub. Bac. Endocard. (2).....	1	1	...	...	...	...	...	...
7. Luetic Ht. Dis. (2).....	...	1	1	...	...	...	...	...
8. No other evid. Ht. Dis. (1).....	...	...	...	...	...	...	...	1
TOTALS	9	9	1	2	1	...	1	4

has lived 5 years since the block was found, with the appearance of no cardiac symptoms or signs. One is a case of coronary occlusion which has survived 18 months from clinical onset and EKG finding. The three others are instances of arteriosclerotic heart disease who have survived over 2 years; each has evidence of only mild cardiac dysfunction at the present time; one now has a normal EKG, no cardiac complaints, but has mild Raynaud's disease.

This series, though not large, is fairly representative, and may give a fairly reasonable idea of the prognosis in bundle branch block.

SUMMARY

1. In 3,243 electrocardiographic abnormalities found in approximately 2,000 patients, bundle branch block was present 33 times.

2. The group of arteriosclerotic heart disease accounted for the largest percentage of cases, 11 in all. The severe toxic group was next, usually terminal, with 6 cases. Coronary occlusion was

third with 4 cases.

3. Right bundle branch block was found in 4 instances, left type in 13, and atypical types in 15.

4. There were 24 males and 9 females. Limits of age were 6 to 77 years. Most cases were between 45 and 65 years of age.

5. Five cases died in 2 weeks or less after block was found. Four died in from 2 weeks to 1 year. Seven are dead after 3 years. Six are still living, 4 after 3 years.

6. One case of typical right bundle branch block has never had any other evidence of organic heart disease and has lived 5 years since bundle branch block was found. One having myxedema, and one now having Raynaud's disease (previously diagnosed arteriosclerotic heart disease) now have normal electrocardiographs and no cardiac complaint.

7. Ordinarily bundle branch block is associated with grave organic cardiac lesion; sometimes it is not; therefore reasonable care should be used in employing it as a prognostic measure.

SURVIVAL FROM CLINICAL ONSET

Cardiac Diagnosis	2 Wks. or Less Dead	2 Wks.- 1 Yr. Dead	1-2 Yrs. dd.	1-2 Yrs. liv.	2-3 Yrs. dd.	2-3 Yrs. liv.	After 3 Yrs. dd.	After 3 Yrs. liv.
1. Arterioscler. Group (6).....	...	1	...	...	...	1	2	2
2. Coron. Occlusion (4).....	1	1	...	1	1	...	...	...
3. Hyper. Car. Vas. Ren. (3).....	...	...	...	...	1	...	2	...
4. Toxic Group								
1. Myxed. 4 terminal.....	4	...	...	...	...	...	...	1
5. Rheumatic Group								
Chronic (3).....	...	...	...	...	...	...	3	...
Active (1).....	...	...	...	...	1	...	...	...
6. Sub. Bact. Endoc. (2).....	...	2	...	...	...	...	...	...
7. Luetic Ht. Dis. (2).....	...	...	1	...	1	...	...	...
8. No other evid. Ht. Dis. (1).....	...	...	...	...	...	...	...	1
TOTALS	5	4	1	1	4	1	7	4

THE PSYCHONEUROTIC IN THE GENERAL PRACTICE OF MEDICINE*

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We assume it to be the primary task of the doctor to heal sickness and relieve suffering. Research, teaching, writing, and even preventive medicine must be regarded as subordinate to this fundamental aim of healing.

I make this trite but true declaration in order that we may ask ourselves to what extent we are successful in this aim. If we reflect upon the remarkable achievements of bacteriology and surgery and orthopedics and cooperative medical diagnosis, we may indeed feel vastly encouraged. But, on the other hand, we cannot but be disturbed at the realization that large numbers of those who pour into the doctors' offices daily are sick in ways which are not relieved by any of our treatment devices or by any of our modern techniques. Vari-cus estimates put this class of patients at better than fifty per cent of all medical consultations. These patients are sick, they suffer pain, they complain, they are unhappy, they seek relief, but for the most part they do not get it. Their illnesses are not represented by any major structural pathology. We call them psychoneurotics.

To some physicians this represents an insoluble paradox. A disease without a physical basis is something which they simply cannot conceive of as being possible. Their impulse is to regard such patients as malingerers, insincere and worthless cry-babies who do not deserve the consideration or time it requires to discover the groundlessness of their complaints. I have heard such physicians call these patients names (behind their backs)—"neuros," "nuts," "damn neurasthenics," etc. To the patient's face such doctors are often rude and harsh or else "preachy" and bullying. I have known otherwise capable physicians to tell such patients that they were only lazy or stupid or malicious to exhibit such symptoms.

Other physicians react to these patients less with irritation and annoyance than with curiosity. They exhaust themselves (and the patients) trying to find some minute, hidden organic disease which the ordinary tests do not reveal. Other physicians are moved emotionally in a different direction from those I have just mentioned; they are apt to become oversolicitous and expend pity, anxiety and great concern upon these sufferers. Still others, vaguely aware of the psychological problems involved in such cases and very uncertain of their own abilities to handle such problems, worry along with these patients using now this and now that method of treatment in the hope that "the element of suggestion" may turn the trick.

Emotional reactions, such as I have described, toward the neurotic patient arise from a misunderstanding of the nature of neurosis. This misunderstanding is perpetuated by a fallacious conception of disease, which unfortunately most medical schools continue to teach. I refer to the absurd axiom that all pathology is structural. On this basis, a neurosis is a disease which is not a disease, which, of course, is an absurdity on the face of it.

To review briefly the history of the concept of neurosis, I would remind the reader that from a theoretical standpoint it has been something of a will-o'-the-wisp. It was known in Greek Medicine, then it disappeared, reappeared in Medieval Medicine, disappeared, reappeared, disappeared, etc. In American Medicine, the specialty of neurology was developed during the Civil War because of the fact that there were so many nerve injuries and some of the surgeons and other medical men became especially interested in the types of anesthesia and paralysis caused by these lesions. The World War, on the other hand, developed the specialty of psychiatry. The medical staff of the army was swamped with what were regarded at first as nerve injuries, then as obscure organ injuries, or minute hemorrhages in the brain, or perhaps even in the organs and in the nerve trunks. A very few physicians had the temerity to suggest that there might even be such a thing as symptoms arising from a psychological injury. But this was a very vague concept in 1915 for most American physicians. "Were such mind injuries in the nature of imagination?" they asked. "Or were these soldiers just malingering, as the industrial surgeons were always prone to suspect in their compensation cases in civil practice?"

The experience of the physicians in the war led them to conclude that they were dealing with neither imaginary illnesses nor malingering but with illnesses resulting from psychological injuries, the full nature of which was unknown to the sufferer, however obvious the secondary benefits might be. (Of course Sigmund Freud had shown this twenty-five years earlier, but physicians had paid no attention to him.)

We may now define neurosis in a new way—as an illness largely determined by psychological factors unknown to the patient, the symptoms of which are exploited secondarily to obtain certain practical advantages, thus making the best of a bad bargain. But, someone might ask, "Is this not true of all diseases to some extent?"

Perhaps there is a large unconscious psychological factor in all disease. Certainly it would

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seem to be the case very frequently in goiter, arthritis, gastric ulcer, urticaria, asthma, etc.

I would have to agree that this is correct, so I shall tentatively propose another definition of neurosis, a simpler definition, and one which will relate it to these other diseases which may also have some psychological factors in their etiology: A neurosis is an illness in which the psychological component in the etiology predominates over the physical and chemical components.

To understand this definition, we must recall the fact that medicine has gone through three eras; the chemical, the physical and the psychological. In each one of these eras the pathology, the diagnosis and the therapy were based chiefly upon the prevailing concept of the disease. For example, there was a time when gall bladder disease was regarded chiefly as something humoral, a chemical affliction to be treated in a chemical way. Later it began to be looked upon as a physical affliction, i.e., largely a mechanical one, to be treated in a mechanical (surgical) way. I won't go so far as to say that we have now come to regard gall bladder disease as primarily psychological in nature but there is no question in anyone's mind but that there are emotional factors connected with what is called biliousness and excess gall.

Modern medicine retains elements of all three of these eras; for example, hyperthyroidism may be conceived of and treated primarily from a chemical basis, that is to say with Lugol's solution; or it may be regarded as a physical affliction and treated by surgical methods; or it may be regarded as a reaction to emotional conflicts and treated with psychotherapy. Similarly high blood pressure can be treated medically, surgically and psychologically. All of these can be successful sometimes and fail at other times. But although we say that modern medicine implies physical and chemical and psychological consideration of every problem, the fact is that in medical schools we are taught to make physical examinations and taught to make chemical examinations, but we are not taught to make psychological examinations. The result is that most doctors know more about the physical condition of their patients, and more about the chemical condition of their patients than they do about the psychological condition of their patients. The average doctor is much better equipped to examine a patient's urine than to examine his dreams. The average doctor pays far more attention to his patient's blood count than to his patient's love affairs.

Yet the psychological factor does enter into every disease just as the physical factor enters into every disease, and therefore every patient deserves a psychological examination. The more prominent the emotional factors are the more necessary the psychological examination. We would regard a doctor as a quack who based his treatment of a case of appendicitis on the psychological examination without making a physical

examination. Why should we not be similarly critical of a doctor who treats a psychoneurotic patient after making a physical examination but not a psychological examination?

The psychological examination of a patient with appendicitis might show that he had an abnormal fear of thunder storms derived from childhood experiences, but this would not cure his inflamed appendix and the doctor would fail in his treatment. Similarly the physical examination of a man with a psychoneurosis might uncover the fact that he had a secondary anemia or varicose veins, but treatment of these conditions would not cure his psychoneurosis, and this doctor would also fail. This explains the failure of the medical profession to cure many psychoneurotics who then rush to quacks and faith cures.

But failure to help the psychoneurotic has more serious disadvantages than merely the loss of a patient for a particular doctor. Such patients legitimately criticize the medical profession. They soon learn to exploit every slight advantage which their illness gives them and to throw the responsibility as much as possible upon those who have failed to understand them and treat them appropriately.

Some of the common fallacies concerning neurotics which arise from a failure to conceive of neuroses in these newer terms are worth mentioning for the consideration of those who are earnestly desirous to avoid them.

1. It is a great mistake to assume that the secondary benefits that neurotic patients get from their illnesses (for example, the attention of the family, financial compensation from their insurance companies, the evasion of responsibilities) are the primary causes of that neurosis. This fallacy leads to the unpleasant predicament of the doctor and the patient secretly calling one another names. The doctor thinks the patient is a liar and the patient thinks the doctor is a fool. It would be more correct to say that the patient is making the best of a bad bargain, and the doctor is being fooled by the bargain and failing to see the true cause of the illness.

2. The second fallacy is the assumption that many physicians make to the effect that neurotic patients should cure themselves, or must cure themselves. Neurotic patients cannot cure themselves. They can help themselves to get well, it is true, but only if the doctor steps in and helps them to do so. The necessary agency of a second party depends upon the fact that the neurotic patient's relationship to other persons in the world is seriously disturbed and he must have someone in whom he can have faith who will be honest with him and at the same time patient with him and seek to understand him before he can have the courage or the will power to examine his own psychology and thus to help himself.

3. It follows, therefore, that one cannot permanently help neurotics by the use of methods which fool the patient or attempt to do so. Placebos of

all kinds are out of place in the treatment of neurotics. Whether or not they are of any value in the treatment of organic illnesses in some instances I do not know.

4. Nor is it scientific or sensible to concentrate upon physical measures and chemical measures or psychological measures in the treatment of neurotic patients. If the predominant motive is a psychological one, the logical therapeutic approach is psychological. A colleague of mine, not a psychiatrist but an internist and general practitioner, recently wrote me a letter in which occurs the following apt passage:

"Many of my worthy colleagues are at a total loss, once there is not an appendix to remove, some tablet to give out or some glandular preparation to loose in the depths of the patient's buttocks. They have enormous difficulty in understanding that little Tommy for fear of his father may exhibit a recurrent abdominal pain, even after a partial and progressive evisceration including removal of appendix, tonsils, *et al.* I may sound harsh and prejudiced, but I would like to see the neurotics come back to us, trust in us and stay with us—instead of submitting to radiation with multicolored lights, spine wallopings and the mumbo-jumbo of Christian Science."

The modern doctor must recognize that the techniques of psychological examination and of psychological treatment are a necessary part of his equipment. This includes a knowledge of the modern concept of human psychology, the adjustment process, and the techniques of manipulating interpersonal relations (psychotherapy). It must include also a knowledge of the unconscious psychological processes.

Some neurotics are too far gone, too deeply involved in their own conflicts with their environment to be helped by what I have called in my book, *THE HUMAN MIND*, minor psychiatry. They require major psychiatry. But most of them by very reason of their great numbers must be handled by the general practitioner. It is he who must do the minor psychiatry just as he does most of the minor surgery.

In conclusion, I think I can do no better than to enumerate a few general principles with which every doctor who really wishes to do so can carry into practice some of the ideas I have suggested in this paper. When I am reproached sometimes for not telling doctors exactly what to do for these patients, I tell them that they must learn this fact, a hard fact to learn: it is not so much a question of what one does, or what one says, as a question of what attitude one has toward these patients. I think we must always remember that every person deserves to be considered as a psychological person as well as a physical person and a chemical person, and that means to have a psychological examination and a sociological examination as well as a physical examination. We must remember that every patient, and the psychoneurotic more so

than all the others, comes to us with a secret fear of us for all his manner of hope and confidence. This fear can be allayed by the proper gentleness, sympathy, and patience, not only at the first meeting but throughout one's contact with him. Back of this fear is often a feeling of guilt of which the patient himself is not conscious but which will impel him to endure suffering, not only endure it, but actually seek to persuade doctors to inflict it upon him. For this reason neurotic patients are very susceptible to suggestion that they take this or that form of treatment even when their intelligence or their deepest intuition tells them that the treatment will not cure the disease. But to take advantage of this sense of guilt is to lead the doctor astray. It only prolongs the illness and puts reproaches in the patient's hands. It is far better that we seek for the cause of the guilt feelings.

And whatever the patient says, we must remember to listen long and patiently without censor, without rebuke, or without preaching. This is one of the most effective means of helping the psychoneurotic patient even if the doctor says nothing at all, and more so if he trains himself to properly evaluate the material he obtains by this method.

I would not end without saying that I know from experience and observation how many difficulties lie in the way of actually accomplishing these things which I have outlined—the lack of time, the misunderstanding and opposition of the relatives, the bewilderment and suspicion of the patient, his expectation that you will give him some drugs or some treatment of a kind with which he is more familiar. Then most deadening of all there is the doctor's own feeling of inadequacy, of unfamiliarity with psychological factors, but this can be corrected to a large extent by proper reading and some postgraduate study and I believe that every doctor would find both of these to his advantage.

In spite of all these difficulties, I know from my own experience and that of my colleagues with whom I have worked that the point of view toward neurotic patients and the techniques in handling them that I have outlined will vastly improve the therapeutic efficacy of the physician and the health and happiness of his patients.

**Don't Forget the
Southern Indiana
Postgraduate Course
to be held at
French Lick, September 7 and 8**

OVARIAN DYSFUNCTIONS MANAGEMENT; AIDS TO DIAGNOSIS*

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The advancement of our knowledge of the glands of internal secretion, together with practical means of identifying the secretion products of these glands, has made possible a more rational management of the long mismanaged problems of ovarian function. The method of trial and error has been, and will continue to be, a predominating feature of these obscure problems as long as progress is to be made in therapy in this field as well as in other medical practices of any sort. In no branch of medicine is it more necessary to follow closely the newer work as regards the isolation of the products of those glands which control the physiologic balances than it is in the field which concerns the normal as well as the abnormal menstrual functions.

To outline a workable classification of the ovarian dysfunctions, together with a few remarks regarding the available methods of arriving at some rational diagnosis of these states, is the purpose of this paper. Advances in our knowledge of the changes that occur during the normal and abnormal ovarian functions have been made along two general lines. The studies of the secretory products of the ovary and the glands which exert an influence upon ovarian activity, namely the pituitary body and thyroid gland, constitute the one line of attack. The remarks which I have to make concerning these studies do not pertain directly to work in which I have been engaged. The second method of study of the functions of the ovary has been made possible by study of the histologic changes that occur in the mirror of ovarian activity, namely, the endometrium. With this phase of the problem I¹ have been especially concerned. Our changing ideas of the significance of the observed states in the endometrial cycle have aided greatly in the management of the dysfunctions of the ovary. The biopsy of the endometrium, which is now an easily employed office procedure and which eliminates the necessity of expensive surgical procedures, such as dilatation and curettage, has aided further in this study.

Since the two named methods of approach are necessary to study the normal activity of the ovary, it follows naturally that one should not attempt to treat ovarian dysfunctions unless he is willing to make use of at least some of these methods. To treat these dysfunctions without such knowledge, which is available through the use of clinical and

surgical pathology laboratories, is as useless as attempting the rational management of a metabolic disease, such as diabetes, without the aid of urinalysis and determination of the concentration of sugar in the blood. The procedure of treating these functional menstrual irregularities without these available diagnostic aids means treating a symptom rather than a cause, and at the same time the results will be uniformly poor. This does not imply that the general practitioner must be equipped to make intricate studies of the hormonal content of the urine in order to treat a patient who has ovarian dysfunction. However, many of these aids are as easily available as are the previously named tests for diabetes which are carried out by his laboratory colleagues.

DIAGNOSIS OF OVARIAN DYSFUNCTIONS

There are certain steps which should always be taken in the approach to the problem of a given ovarian dysfunction. These are briefly tabulated in table 1. A general examination is of importance and the weight and distribution of weight are of particular importance. For example, certain types of pituitary dysfunction often may be recognized merely by examination. The gynecologic procedures will be determined, of course, subsequent to adequate pelvic examination. The presence or absence of cysts of the ovary may change the course of one's procedure. No therapy should be attempted in an ovarian dysfunction without first establishing the basal metabolic rate. Roentgenograms of the head, with reference to the sella turcica, should always be made in cases of menstrual irregularity and especially in those cases in which amenorrhea is the predominant symptom. This is necessary because one is aware of the fact that a tumor of the pituitary body may first announce its presence by amenorrhea, and one would scarcely be justified in treating a patient for an ovarian disturbance in this type of case, and

TABLE 1

DIAGNOSTIC PROCEDURES IN OVARIAN DYSFUNCTIONS

1. General physical examination.
2. Special gynecologic examination when indicated, with reference to tubal patency, infection, etc.
3. Basal metabolic rate.
4. X-ray of head (sella).
5. Urinary assays:
 - a. Prolan.
 - b. 24-hour estrin.
 - c. 24-hour pregnandiol (excretion product of progesterone).
6. Endometrial biopsy:

(22 to 25 days after last bleeding period.)

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¹ Herrell, W. E.: Histologic studies of the endometrium during various phases of the menstrual cycle: preliminary report. *Proc. Staff. Meet. Mayo Clinic* 10:168-174 (Mar. 13) 1935.

more especially one certainly would not wish to give stimulating doses of roentgen rays over such a pituitary body. One does not need exceedingly elaborate equipment to carry out urinary studies with reference to the prolactin content. Drips² has recently outlined the Aschheim-Zondek alcohol precipitation method which we use at the Mayo Clinic. This test is done near the middle of the menstrual cycle or sometimes during menstruation. In certain cases of ovarian dysfunction, when partial or complete failure is present, prolactin will be present in the urine, usually in excessive or greater than normal amounts. Usually, in the normal woman, the concentration of prolactin does not exceed at any time 25 rat units per liter of urine. Amounts greater than this will therefore indicate hyperfunction of the pituitary body in an attempt to stimulate an ovary which is likely to be the site of primary ovarian deficiency. Likewise, determination of the concentration of estrin in a twenty-four hour specimen of urine may be made and is exceedingly helpful. This method, which is the method of Smith, also has been outlined recently by Drips. In these estimations, 700 c.c. of urine is pooled and used for extraction. The concentration of estrin, of course, is normally very low during the menstrual period; but after this it rises to a peak and begins to drop after the activity of the follicle has decreased. The usual height of the rise is 25 to 30 rat units. This test is also of great value, as a normal concentration of estrin for the proper time during the menstrual cycle will be helpful in excluding dysfunction from being primary in the ovary, and it is likely to indicate a secondary phenomenon, such as a pituitary or thyroid disturbance. The recent method of determining the presence quantitatively of pregnandiol in the urine, which was described by Venning and Browne^{3,4} and which has recently been confirmed by Wilson et al.,⁵ offers great promise in determining the functional activity of the luteal hormone. This represents a very definite advance in this field and substantiates a belief which we^{6,7} have previously

expressed, namely, that various degrees of corpus luteum deficiency may exist; this opinion was based on what we were able to observe in the histologic examination of the endometrium. Pregnandiol represents the secretory product of progesterone, which is known rather definitely to be the hormone of the corpus luteum. The fact that it appears in the urine as pregnandiol rather than progesterone accounts, of course, for the difficulties which have been encountered previously in its isolation.

In doing endometrial biopsy we use the instrument which was devised by Randall⁸ and which in our hands has given exceedingly satisfactory sections for microscopic study. This is an office procedure which is easily mastered, and when one does not have the opportunity of making urinary studies the biopsy offers the greatest single diagnostic aid in determining the degree of ovarian deficiency or failure. However, I would like to point out very specifically that ovarian deficiency will reflect itself the same in the endometrium, regardless of whether the cause of the failure is within the ovary (primary) or without the ovary (secondary). The biopsy, as stated, offers the greatest single diagnostic method of determining whether the failure is partial or complete, while the other procedures which I have previously mentioned will determine whether or not the primary difficulty is in the pituitary body, thyroid gland, or ovary. The biopsy should always be done between the twenty-second and twenty-fifth days following the last menses or following the last period of bleeding. By so doing one may learn whether or not the regeneration of the endometrium is comparable to that normally seen at this time. If there is a persistence of an earlier phase, one at once knows that there is at least a partial deficiency of the ovary to the degree of lack of corpus luteum and perhaps even some follicular deficiency. These persistent states I^{9,6} have previously described and have indicated their significance. This is of especial importance in the subsequent therapy to be employed, for one does not wish to administer theelin, for example, when the endometrium designates the positive presence of theelin and the absence of the luteinizing factor. In fact, theelin will do more harm here than good and, therefore, the hormonal therapy indicated is a supplementing of the luteinizing factors.

CLASSIFICATION OF OVARIAN DYSFUNCTIONS

If one has employed some or all of the procedures which I have outlined, in an attempt to arrive at a rational diagnosis of ovarian dysfunctions, it appears at once that these ovarian deficiencies fall into one of two great groups. This simplifies the subsequent management of these patients remarkably. These two groups are, first, the *primary ovarian deficiencies*, in which the defi-

² Drips, Della: Treatment of functional menstrual irregularities. *Med. Clin. N. Amer.* **21**:909-928 (May) 1937.

³ Venning, Eleanor H. and Browne, J. S. L.: Isolation of water-soluble pregnandiol complex from human pregnancy urine. *Proc. Soc. Exper. Biol. and Med.* **34**:792-793 (June) 1936.

⁴ Venning, Eleanor H. and Browne, J. S. L.: Studies on corpus luteum function. I. The urinary excretion of sodium pregnandiol glucuronide in the human menstrual cycle. *Endocrinology* **21**:711-721 (Nov.) 1937.

⁵ Wilson, R. B., Randall, L. M. and Osterberg, A. E.: Studies on pregnandiol: I. Preliminary report on the relation of the amounts of pregnandiol in urine to microscopic appearance of the endometrium. *Proc. Staff. Meet. Mayo Clinic.* **13**:197-202 (May 30) 1938.

⁶ Herrell, W. E. and Broders, A. C.: Histological studies of endometrium during various phases of menstrual cycle. *Surg., Gynec., and Obst.* **61**:751-764 (Dec.) 1935.

⁷ Randall, L. M. and Herrell, W. E.: Cystic changes in the endometrium. *Surg., Gynec., and Obst.* **65**:666-671 (Nov.) 1937.

⁸ Randall, L. M.: Endometrial biopsy. *Proc. Staff. Meet. Mayo Clinic* **10**:143-144 (Feb. 27) 1935.

⁹ Herrell, W. E.: Endometrial histology in relation to ovarian dysfunction. *Am. Jour. Clin. Path.* (In press.)

ciency is in the ovary itself and, second, the *secondary ovarian deficiencies*, in which the ovary is usually able to function somewhat normally but the symptoms result because of a lack of the driving power of the pituitary body or of the thyroid gland, which we know definitely exert their influence on normal ovarian activity.

In primary ovarian deficiency the activities of the pituitary body and the thyroid gland are usually normal. In these cases there is usually no disturbance of fat metabolism, such as increased pelvic girdle and so forth, and the patients are usually of normal weight or often slightly underweight. The basal metabolic rates will be normal. The prolactin content of the urine may be normal or in excess, which indicates again that the pituitary body is working properly or may be overcompensating. The primary deficiency is, therefore, ovarian and the estrin content of the urine will usually be low. In this group of cases, from the standpoint of symptomatology, one has to deal not only with menstrual irregularities, such as amenorrhea, menorrhagia, and sterility, but with the train of symptoms associated with the failure of the ovary, namely, menstrual migraines, soreness of the breasts, and even hot flushes among young patients as well as among menopausal patients. It is becoming increasingly evident that ovarian failure in a young woman is identical with ovarian failure in an older patient; in both cases the condition represents physiologic senility, and as one classifies the patient into one of these groups along the line which has been described, one will not treat a patient for primary ovarian deficiency when the difficulty is in the pituitary body or thyroid gland, nor will one treat a patient for primary pituitary or thyroid failure when the seat of difficulty is in the ovary.

In the second large group, which constitutes the secondary ovarian deficiencies and in which the primary trouble is in the pituitary body or thyroid gland, a very different picture is presented both from the point of view of associated symptoms and laboratory findings. The menstrual irregularity again may be either amenorrhea or a bleeding dysfunction as well as sterility, but the associated findings are the important factors in classifying patients in this group. In this group of cases the evidence of failure of the ovary as regards hot flushes and the associated symptoms is practically negative unless the condition is of long standing. In the primary pituitary deficiency the concentration of prolactin in the urine, for example, is low or the prolactin is completely absent. The concentration of estrin will usually be normal although if the condition is of long standing the concentration of estrin may be somewhat low. The basal metabolic rate is usually low because the thyroid gland usually fails in the presence of pituitary failure. In these cases there usually will be disturbances in the deposits of fat, namely, an increase in the pelvic girdle, and the patients are,

as a rule, somewhat overweight. There is also evidence of disturbance of water metabolism. The patients do not complain, as a rule, of hot flushes and of the breast disturbances, such as are seen in the primary ovarian failures. The biopsy here again will show the degree of secondary deficiency of the ovary, namely, a partial or complete failure. In a partial failure the endometrial regeneration will be arrested in one of the phases, and in the complete failure the endometrium may be atrophic.

When secondary ovarian deficiency is due to primary failure of the thyroid gland, the associated symptoms of pituitary failure are absent and one sees the usual symptoms associated with a low basal metabolic rate, although they need not necessarily be predominant. The prolactin content of the urine may be normal since the pituitary body is functioning. The estrin content of the urine will often be low, although normal values may be obtained. The basal metabolic rate will be low in proportion, of course, to the severity of the thyroid deficiency. One need not reiterate the symptoms of a low basal metabolic rate since they are well known to all, namely, sensitivity to cold, dry skin, dry and brittle hair and nails. The ovarian manifestations, of course, are secondary to this failure. The findings at biopsy again will depend upon the degree and kind of failure in the ovary. This group of patients, from the point of view of therapy, represents one of the most satisfactory to treat since the elevation of the basal metabolic rate and maintaining it around -5 to 0 are all that is necessary to bring about a return of normal ovarian function in a large percentage of cases. Haines and Mussey¹⁰ (1935) reported a series of seventy-four cases of this type in which the patients were treated with desiccated thyroid alone. In 72 per cent of the cases of amenorrhea there was definite improvement, and there was improvement in 55 per cent of the cases of oligomenorrhea. The results are even better in the metrorrhagic type of menstrual irregularity; in this group nearly normal periods followed treatment in 73 per cent of cases. Table 2 represents an attempt to combine the features of this entire classification with some of the methods of treatment.

It is necessary at this time to mention one small group into which some cases fall. In this group it would appear that the patients are normal in every way. The blood and urinary hormones are present in normal amounts, and the uterus is of normal size. These women may even become pregnant without menstruating, yet one is unable to determine just what the cause of the amenorrhea is. It is worthy of emphasis, also, that in the previous classification no mention has been made of the menstrual irregularity of which these people may complain. This is especially significant

¹⁰ Haines, S. F. and Mussey, R. D.: Certain menstrual disturbances associated with low basal metabolic rates without myxedema. *Jour. Am. Med. Assn.* 105:557-560 (Aug. 24) 1935.

TABLE 2
CLASSIFICATION OF OVARIAN DYSFUNCTIONS

- I. Primary ovarian deficiency (sterility, amenorrhea or bleeding dysfunction).
 - A. Diagnosis.
 1. Normal or excess prol. n.
 2. Estrin, low or absent.
 3. Basal metabolic rate, normal.
 4. Associated symptoms (breasts, hot flushes, etc.).
 5. Biopsy—

{	Partial failure—arrested endometrial phases.
{	Complete failure—atrophic endometrium.
 - B. Treatment:
 1. Partial failure (luteinizing hormone, antuitrin "S," proluton, sistomensin, pregnancy serum, x-ray).
 2. Complete failure (combined hormones, theelin and antuitrin "S," plus x-ray to ovaries).
- II. Secondary ovarian deficiency (sterility, amenorrhea, or bleeding dysfunction).
 1. Primary pituitary deficiency:
 - A. Diagnosis.
 - a. Prol. n., absent or low.
 - b. Estrin, usually normal.
 - c. Basal metabolic rate, low.
 - d. Fat metabolism, abnormal.
 - e. Water metabolism, disturbed.
 - f. Biopsy (indicates activity of ovary only).
 - B. Treatment.
 - a. X-ray stimulation of pituitary.
 - b. Elevation of B.M.R.
 - c. High vitamin and protein diet (milk).
 2. Primary thyroid deficiency:
 - A. Diagnosis:
 - a. Prol. n., normal.
 - b. Estrin, may be low or normal.
 - c. Basal metabolic rate, low.
 - d. Associated symptoms.
 - B. Treatment:
 - a. Elevation of B.M.R.

because there is a common tendency to treat either of these symptoms empirically. This is impossible because one may see, for example, an amenorrheic disturbance or a very marked bleeding disturbance in another case; in both of these cases the condition is the result of hypothyroidism. This merely means that the ovarian failure is manifested in one case by a bleeding tendency and in another by a tendency toward amenorrhea; yet in another case the menstruation may be normal and the only complaint may be sterility. We do not know why some patients bleed and some do not bleed. For that matter, we do not know why menstruation or bleeding begins in spite of many hours of investigation, although it appears that we may be approaching the answer to this problem. Suffice

it to say, however, that the type of menstrual irregularity is of no great significance as far as treatment is concerned if one locates the site of the difficulty. This fact is especially emphasized in the several cases which I will report. In these cases the outcome of treatment along the lines which have been recommended was exceedingly gratifying.

TREATMENT

Primary ovarian deficiency.—In several previous papers I have outlined a method by which one may tell, from the endometrial biopsy, the type and degree of ovarian failure. The partial failures are usually indicated by a lack of the effect of the luteinizing hormone on the endometrium, and hence therapy should be directed along the lines of supplementing the luteinizing factor. The luteinizing hormones should be given, of course, during that portion of the menstrual cycle in which these hormones normally exert their influence, namely, the last two weeks of the menstrual cycle. Any good luteinizing hormone is indicated, such as antuitrin "S" or proluton; the hormone should be administered three days per week in the last two weeks of the menstrual cycle. Sistomensin may also be used, since this contains some luteinizing factor and is often given in the last few days of the cycle and through the period of bleeding. The use of approximately 20 c.c. of human pregnancy serum given exactly in the midportion of the menstrual cycle is a useful and inexpensive method of treating these dysfunctions. The pregnancy serum is given for its progesterone (luteinizing) effect. Hunt¹¹ has recently reported two cases of sterility in which subsequent pregnancy ensued following two months of such therapy. Stimulating doses of roentgen rays* over the ovaries are also of value in some cases.

Complete ovarian failure usually manifests itself by an atrophic endometrium; this type of failure is somewhat more difficult to treat than the minor deficiencies. However, the use of combined hormones, such as theelin, followed by the administration of luteinizing hormones has produced good results according to some authors. Stimulating doses of roentgen rays offer one of the best methods of management of this type of disturbance. Irradiation is especially considered when one is dealing with amenorrhea, for example, of more than six months' duration. Drips reported a good chance (60 per cent) of bringing on the establishment of the menses within a short time after treatment.

¹¹ Hunt, A. B.: The use of human pregnancy serum in the treatment of sterility. *Proc. Staff. Meet. Mayo Clinic* 13:81-84 (Feb. 9) 1938.

* For the treatment of ovarian dysfunction, we at the clinic are now irradiating one field over each temporal region, centering over the pituitary body, and one field over the front of the abdomen, centering over each ovary. The following technic is used: 200 kilovolts, 10 milliamperes, 0.75 mm. copper and 1 mm. aluminum filters, 50 cm. distance, for five minutes. This represents approximately one-sixth of a skin erythema dose.

One exposure is all that usually is necessary, although it may be repeated once in three months.

Secondary ovarian deficiencies.—In general, the secondary ovarian failure associated with primary pituitary failure represents a rather gratifying type of condition to treat. One of the first considerations is the usual overweight which is treated by means of a reduction diet which also is high in vitamins and contains sufficient protein. Since the metabolic rate is usually low, this is raised by the administration of desiccated thyroid glands in doses of 3 grains (0.2 gm.) a day for three days and 2 grains (0.12 gm.) a day for four days, at which time a subsequent basal metabolic rate is taken. If the basal metabolic rate is between 0 and -5, it may usually be held there by administering 1 grain (0.065 gm.) of desiccated thyroid glands one day and 2 grains (0.12 gm.) the next day. In addition to this, one small dosage of roentgen rays over the temples may be followed by good results in as many as 80 per cent of cases. We have several cases in which the patients were relieved of their menstrual irregularity by this method; in some of the cases the patients subsequently became pregnant.

I already have mentioned the management of the primary thyroid deficiency. In this group of cases the elevation of the basal metabolic rate is usually all that is necessary and one does not have to deal with the pituitary factor. The following cases are illustrative of each group presented in the classification.

REPORT OF CASES

The first case illustrates the diagnosis, treatment, and subsequent outcome of primary ovarian deficiency.

Case 1.—A married woman, aged twenty-four years, came to the clinic because of menorrhagia. The onset of her menses apparently had been normal and the menses had been regular until about a year before she came to the clinic. A short time before her visit to the clinic she had been using a large box of pads during one menstrual period and had been flowing excessively; there also had been some clots. She had been married three and a half years, and until the time of her admission she had been unable to conceive. She had been given five injections of proluton before and on the first two days of her menstrual period; this had caused a definite decrease in the amount of flow. The dysmenorrhea of which she complained was much less during this treatment. Subsequently, sistomensin had been given ten days prior to the onset of her menstrual periods but this had not controlled the bleeding. Later, proluton again had been given and produced decrease in the amount of flow. This suggested, of course, that she probably had a corpus luteum deficiency since replacement by means of this luteinizing hormone had produced some relief. Physical examination revealed nothing significant other than a very slight enlargement of the uterus. There was a moderately severe secondary anemia. Otherwise, the results of general examination were negative. The presence of prolun in normal amounts in the urine was determined by means of the Frank technic. The concentration of urinary estrin, which

was determined fifteen days after the onset of the last menstrual period, was only 9 rat units, which indicates a subnormal level. Her basal metabolic rate was normal (-1). A biopsy of the endometrium, which was performed just before the next expected menstrual period, revealed a late differentiated phase of the menstrual cycle, but definite cystic changes were present. These changes substantiated the impression that she had a corpus luteum deficiency. On March 12, 1937, she received 20 c.c. of pregnancy serum in the midportion of the cycle. On April 8, 1937, she received 18 c.c. of pregnancy serum; this date also was near the midportion of the menstrual cycle. Shortly after this she had amenorrhea for six weeks. On May 10, 1937, a Friedman test for pregnancy was positive. She had not only been relieved of her menorrhagia but had subsequently become pregnant. Unfortunately, she carried the fetus only a little more than two months, when a spontaneous abortion occurred. However, since the stimulus of pregnancy, probably made possible by the progesterone therapy, her menstrual periods have been normal in amount and duration, and the intermenstrual interval has been normal. She again is taking 20 c.c. of pregnancy serum at the midportion of the menstrual cycle in the hope of overcoming the infertility.

This case clearly illustrates the significant diagnostic features of primary ovarian dysfunction. The symptoms indicated both a bleeding dysfunction and sterility. This case belongs in the group of primary ovarian dysfunctions because, first, there was a normal amount of prolun, indicating proper pituitary function. The concentration of estrin in the urine was somewhat low for that period of her cycle in which the determination was made, which indicates ovarian deficiency. Her basal metabolic rate was normal, which excludes the thyroid factor. The associated symptoms of dysmenorrhea, soreness of the breasts, and fatigue at the menstrual period as well as the tendency toward spontaneous abortion are confirmatory of primary ovarian dysfunction. The biopsy clearly indicated that the patient had a luteinizing deficiency, as manifested by the presence of cystic changes in the endometrium. This finding accounts very clearly for the fact that a luteinizing hormone in the form of proluton was beneficial in controlling the menorrhagia to some degree. The therapeutic response to the use of pregnancy serum (progesterone therapy) is also significant.

The second case is designed to illustrate the diagnostic features, therapy, and subsequent outcome of a rather typical secondary ovarian deficiency in which the primary deficiency was pituitary.

Case 2.—A nurse, twenty-two years of age, came to the clinic because of menstrual irregularity. It appears that she had had the onset of her menses at the age of thirteen years. From that time until she entered college, the interval between the menses had varied from two to four months. The duration of the flow never had been more than a day and a half and the flow had been scanty. Since shortly after she had entered college, her menstrual periods had varied between six and thirteen months apart; the average duration had been one day and the flow had been scanty. Since 1934, she had received intramuscular injections of theelin bi-weekly for four to

six weeks at a time, and she also had received antuitrin "S" at various intervals. Following the administration of these hormones, she occasionally had menstruated for a few days but as soon as the administration had been discontinued the menses again had ceased. At one time her metabolic rate had been found to be low (-19), and she at times had taken, irregularly, small amounts of desiccated thyroid. Physical examination revealed that she was somewhat obese; the greatest disproportion in her weight was around the pelvic girdle. She had small hands. The pelvic examination revealed a uterus that was almost of normal size. The breasts were rather markedly developed, probably owing to the long continued use of theelin. The other results of physical examination were inconsequential as far as the symptoms were concerned. Tests for prolactin by the Frank technic on two different days one week apart did not disclose any demonstrable prolactin. On the other hand, the concentration of estrin in two twenty-four hour specimens of urine was 20 rat units per liter. The basal metabolic rate was -15 on two different occasions. The roentgenograms of the head and sella turcica were normal. An endometrial biopsy was not done in this case. The results of other laboratory studies, which included blood analysis and urinalysis, were normal.

By fitting these findings into the classification, it becomes obvious that in this case the primary deficiency was in the pituitary body as no prolactin whatever was demonstrable in the urine. The ovarian manifestations were, therefore, secondary and it follows also that her previous treatment had been directed not at the pituitary body but toward the ovaries by means of the administration of large amounts of theelin and antuitrin "S." This did relieve the condition temporarily, but the fundamental problem had not been attacked. In one week's time we elevated her basal metabolic rate to -3 by the administration of desiccated thyroid glands according to the method which has been outlined. Since that time her basal metabolic rate has been maintained between -5 and 0 by the administration of 1 grain (0.065 gm.) of desiccated thyroid glands one day and 2 grains (0.12 gm.) the next day. On September 17, 1937, she received one stimulating dose of roentgen rays over the pituitary body and ovaries. On September 23, 1937, she began to menstruate and menstruated for three days and had an associated dysmenorrhea which was the first time in her life she had ever known what the symptom was. She has menstruated every twenty-eight days from that time until the present time and the menstrual flow has been rather normal. The subsequent menstruation dates are as follows: October 21, 1937; November 20, 1937; December 23, 1937; January 23, 1938; and February 21, 1938. In a recent letter this patient said that she felt what she considered to be normal for the first time in her life.

The next case is selected to illustrate the diagnostic features, treatment, and subsequent outcome of a case in which the primary deficiency was thyroid in nature and the ovarian manifestations, therefore, secondary.

Case 3.—A single woman, aged thirty-four years, came to the clinic complaining of menstrual difficulty which was characterized by rather marked menorrhagia that had increased in amount for three years. She had menstruated as long as ten days and clots had been present. She had used an average of thirty-six pads at each menstrual period. The interval between the onset of flow was usually twenty-one days. There was no dysmenorrhea or intermenstrual bleeding. The onset of the menstrual periods, which apparently had been normal,

had occurred at the age of fourteen years. The menses had remained normal until three years before she came to the clinic. The only significant feature of her past history was the fact that at the age of twenty years she had been operated on at the clinic for an exophthalmic goiter; 50 gm. of thyroid tissue had been removed. Her skin was dry and she complained that her hair had been very dry and brittle, as were the finger nails. The pelvic examination revealed normal pelvic viscera. Her urine was normal. There was nothing to suggest a pituitary deficiency. The basal metabolic rate was -17 and -18 on two different occasions. A biopsy of the endometrium which was performed just before the onset of the next menstrual period revealed a persistent early differentiative phase of the menstrual cycle. This designates, of course, a luteal deficiency. On July 7, 1937, she was started on a program to elevate her basal metabolic rate according to the method which has been described. On August 4, her basal metabolic rate was -2 . The patient felt a great deal better than she had felt, and she did not menstruate until twenty-eight days after the last menstrual period. From that time on her periods have been four weeks apart and instead of menstruating for ten days she has been menstruating five days, which she considers normal, and there have been no clots. The patient said that she felt 100 per cent better. The next time she was seen her basal metabolic rate was -3 ; she continues to take a maintenance dose of 1 grain (0.065 gm.) of desiccated thyroid glands one day and 2 grains (0.12 gm.) the next day.

COMMENT

It is worthy of comment that no therapy in the form of ovarian hormones was required in any of these cases of secondary ovarian deficiency except that which was designed to correct the primary glandular deficiency. No ovarian hormones were necessary since the return of a normal ovarian function follows the correction of the primary difficulty, which in one case was in the pituitary body and in the other cases was in the thyroid gland. It is also worthy of comment that one patient, as is obvious, had a low basal metabolic rate associated with a pituitary deficiency and yet the patient complained of long periods of amenorrhea and hypomenorrhea, while in the last case the patient had a low basal metabolic rate and yet her complaint was menorrhagia. However, following the correction of the primary difficulty, as far as we were able to ascertain, normal ovarian function has been resumed. This serves, therefore, to reiterate the fact that the problem is one of attacking the primary difficulty rather than the symptom, which in one case was an amenorrheic difficulty and in the other case was a menorrhagic menstrual disturbance.

When all of the measures which have been outlined have failed in the management of some of the bleeding dysfunctions, it is often necessary to treat the symptom rather than the cause, simply because the dysfunction defies all effort at classification. For example, one often sees cases of bleeding dysfunction in which it is impossible to locate the cause. It should be borne in mind that one must always rule out any blood dyscrasias in cases of this sort. The therapy will naturally

depend upon the presence or absence of such a dyscrasia. Again, it sometimes is necessary even to use subcastration doses of radium to control unexplained hemorrhage. In addition, snake venom recently has been tried in a small group of cases and the results have been favorable in some cases.

SUMMARY

An attempt has been made to outline a workable classification of ovarian dysfunctions with comments on the present-day available diagnostic procedures employed and their management. If the reader has been left with the impression that

the problem of the management of ovarian dysfunctions is an easy task, then this paper has failed in its purpose. It is difficult at times to classify these conditions since borderline types between one deficiency and another obtain, and in such a case the method of management presents its individual problem. Examples of the several types of primary as well as secondary ovarian deficiency that is the result of primary pituitary and thyroid deficiencies have been presented in the form of typical case histories. If this presentation has stimulated those interested in the pursuit of the problems presented by ovarian deficiencies, then it has indeed accomplished its purpose.

SMALLPOX

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Madison and Henry counties experienced during the winter of 1937 and 1938 an outbreak of smallpox which at times almost approached the proportions of an epidemic. The type of the disease prevalent was so mild that there was some confusion in diagnosis, especially at the beginning of the outbreak. However, some cases were moderately severe, especially in the older age groups. The age incidence was from infancy to sixty years.

Almost without exception the prodromal symptoms present consisted of severe headache and backache, a rapid rise in temperature, chills or chilliness, and gastric disturbance in the form of nausea and vomiting, the vomiting sometimes being persistent and violent. The eruption appeared on the third to the fifth day and at the appearance of the eruption the general symptoms usually subsided and the temperature returned to normal. The eruption passed through the various stages of macules, papules, vesicles, and pustules.

The number of cases and of exposed individuals multiplied to such an extent that it was necessary to enforce compulsory vaccination of school children in several schools of both counties. This compulsory vaccination of school children and the large number of voluntary vaccinations checked the spread of the disease before it reached alarming proportions.

Nothing new in the way of diagnosis and treatment was found in these cases in the two counties mentioned. However, the compulsory vaccination

of school children and voluntary vaccination of other individuals brought out a pertinent fact—that a very large number of children of high school age and adults in the two counties had never been immunized against smallpox.

In the high school and junior high school at Middletown there are 275 students with ages ranging from twelve to eighteen years. Fifty-nine percent of these students had never been immunized against smallpox prior to the outbreak of the disease this winter. No doubt the students in the schools of the larger towns and cities have a higher percentage of smallpox immunizations than that given for Middletown. However, the percentage of immunizations in the Middletown high school is probably about the average for schools in like or smaller communities. No doubt the small number of cases of smallpox during the past ten or twelve years accounts for the large number of children of high school age and adults who have never been immunized.

SUMMARY

1. The recent outbreak in Madison and Henry counties shows that while smallpox today is mild when compared to what it was several years ago, it can and occasionally does break out in epidemic proportions in communities where there has been a laxity in immunization for a period of years.

2. Vaccination of all children before they reach school age should be increasingly emphasized.

549 WEST LOCUST STREET

SOUTHERN INDIANA POSTGRADUATE PROGRAM AT FRENCH LICK,
SEPTEMBER 7 and 8 — PROGRAM ON PAGE XXV

PEPTIC ULCER*

PRESENT STATUS OF ITS MANAGEMENT

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Peptic ulcer continues to be a problem as regards its etiology and treatment. The literature on this aspect of ulcer is voluminous. The physiologists are struggling with the various phases of gastric physiology as related to peptic ulcer. The clinicians and chemists present new modes of management, present new drugs, or suggest a new technique of administering previously used drugs.

From a statistical viewpoint, certain facts are known. Duodenal ulcer occurs much more frequently than gastric ulcer, a ratio of twelve to one, or more. The greater number are found in males; and the incidence is greatest in the active, strenuous years of man's life, the years of greatest emotional strain, twenty to forty. Duodenal ulcer is almost entirely confined to the first part of the duodenum. Gastric ulcer, by all odds, is largely limited to the fundus of the stomach along the lesser curvature. There must be some reason for this predilection for certain areas in the gastroduodenal mucosa.

Over a period of years certain hypotheses regarding the etiology of ulcer in man have been advanced. Virchow¹ suggested the vascular theory; Aschoff,² the mechanical; Rosenow,³ the infectious; Draper,⁴ the constitutional; and von Bergmann,⁵ the neurogenic.

Virchow expressed the belief that a localized necrosis of the mucosa followed some interference with the circulation in the submucosa. This damaged area of necrosis, then subjected to digestion by the acid gastric chyme, resulted in the formation of a chronic ulcer. More recently it has been thought that infarcts with subsequent hemorrhage, or hemorrhagic infarcts, were the forerunner of chronic ulcer. Other investigators have demonstrated that there is an inadequate circulation to the first portion of the duodenum and pyloric end of the stomach with a resulting tendency to increased vulnerability to vascular damage in these areas, and a predilection towards ulcer formation.

The belief that the eroding action of acid gastric chyme upon gastric and duodenal mucosa is a factor in ulcer formation has been advanced by Sippy,⁶ Palmer,⁷ Mathews,⁸ Dragstedt,⁹ and a score of other investigators. The experimental work of Mann and Williamson¹⁰ demonstrated that the incidence of the formation of ulcer roughly parallels the changes in pH after the elimination of various agencies which dilute, neutralize, or buffer gastric contents after it is expelled from the stomach. These latter investigators also called attention to a mechanical factor in the etiology of experimental ulcer. They were able to determine the site of the formation of the ulcer by diverting the duodenal content, and found the ulcer to form at that point where the gastric content first struck with greatest force on being expelled from the stomach.

The role of infection as a cause of peptic ulcer was brought forward by Rosenow³ who, in 1913, reported the production of peptic ulcer of the stomach by the injection of streptococci. Later Konjetzny¹¹ suggested the possibility of a relationship of chronic gastritis of the mucosa to destruction of tissue and a gradual involvement of deeper tissue with the formation of an ulcer.

The neurogenic hypothesis was advanced by von Bergmann⁵ in 1918. Today we hear a great deal of emotional instability as related to peptic ulcer. It is thought that there is some derangement of the sympathetic and parasympathetic nervous system, and that this may lead to changes in circulation to an area of the gastric or duodenal mucosa. This circulatory change may alter the normal protective power of the gastric mucosa, and a subsequent erosion may take place. One should mention here the opinion of Cushing¹² that peptic ulcers occur when there is some disease in the interbrain.

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¹ Virchow, R., "Historisches, kritisches und positives zur lehre der unterleibsaffektionen." *Virchow's Archiv*, v. 5, pp. 281-375. 1853.

² Aschoff, cited by Eusterman, George B. and Balfour, D. C., *The Stomach and Duodenum*. Saunders, 1936, p. 13.

³ Rosenow, E. C., "The production of ulcer of the stomach by injection of streptococci." *Journal of the American Medical Association*, v. 61, pp. 1947-50. 1913.

⁴ Draper, George, *Disease and the man*. New York, 1930.

⁵ von Bergmann, G., "Zur pathogenese des chronischen ulcus pepticum." *Berliner klinische wochenschrift*, v. 55, pp. 524-28. 1918.

⁶ Sippy, Bertram W., "Gastric and duodenal ulcer." *Journal of the American Medical Association*, v. 64, pp. 1625-30. 1915.

⁷ Palmer, Walter L., "The pathogenesis and clinical management of gastric and duodenal ulcer." *Journal of Medicine*, v. 18, pp. 332-35. 1937.

⁸ Mathews, W. E., "Production of intestinal ulcers by active gastric juice." *Proceedings of the Society for Experimental Biology and Medicine*, v. 28, pp. 960-61. 1931.

⁹ Dragstedt, Lester, "Contributions to the physiology of the stomach." *Journal of the American Medical Association*, v. 68, pp. 330-33. 1917.

¹⁰ Mann, Frank C. and Williamson, Carl S., "The experimental production of peptic ulcer." *Annals of Surgery*, v. 77, pp. 409-22. 1923.

¹¹ Konjetzny, G. E., "Zur pathologie und chirurgischen behandlung des ulcus duodeni." *Deutsche zeitschrift für chirurgie*, v. 184, pp. 85-104. 1924.

¹² Cushing, Harvey, "Peptic ulcers and the interbrain." *Surgery, gynecology and obstetrics*, v. 55, pp. 1-34. 1932.

EXPERIMENTAL WORK

Beazell and Ivy¹³ have performed complete section (bilateral) of the vagus nerves below the diaphragm in rabbits, with the production of ulcers along the lesser curvature of the stomach. These investigators suggested that the denervation of the muscularis mucosa by section of the vagus nerves may eliminate the normal response of the musoca to injurious objects, *i. e.*, the pulling-away, and that then mechanical trauma in association with gastric stasis is a factor, though not the sole factor in the production of this type of ulcer.

In an attempt to determine what role emotional factors might play in peptic ulcer formation, Orndorff, Bergh, and Ivy¹⁴ stimulated motor and secretory activity in dogs by the injection of pilocarpine and histamine. They were thus able to stimulate this activity at a high level for long periods, but were unable to produce ulcers. However, they did produce acute lesions such as hemorrhage of the gastric mucosa, but they felt that there must be some other factor necessary to cause chronic ulcer in the dog.

Summarizing the above, we note that no one theory has been found fully adequate to explain the cause of peptic ulcer in man. The experimental work, particularly that of Mann and Williamson,¹⁰ *i. e.*, emphasizing the corrosive and mechanical action of acid gastric contents, is of importance in the management of peptic ulcer. We know that clinically we are able to relieve many patients when we place them upon a bland soft diet, with small, frequent feedings without the aid of alkali, mucin or other therapeutic medication. However, there are other patients who cannot be relieved so simply, in whom we find factors suggesting the ideas presented in some of the other hypotheses, such as a neurogenic, infectious, or perhaps circulatory cause of ulcer. The wise clinician, in dealing with the chronic ulcer patient, must consider these several hypotheses in the adequate management of his patient.

MANAGEMENT

It is generally agreed that the ulcer patient should have adequate careful medical supervision before surgery is considered, and that certain complications are best handled medically, others surgically. The medical management of gastroduodenal and gastro-jejunal ulcers is generally similar, regardless of what type of treatment may be used. However, to treat gastric ulcer patients medically is a procedure that places upon the clinician a heavy burden of responsibility in view of the difficulty of differentiating gastric ulcer craters from early carcinomatous ulcers, either by

roentgen or gastroscopic examination. The clinician who treats gastric ulcer medically must have frequent roentgenological investigations made of his patient. Failure to show healing on roentgen observation should be reason enough for surgical care. There are patients who apparently have non-malignant gastric ulcers which seemingly remain so for many years. The question we cannot answer is how long they will remain simple, chronic ulcers. We have such a patient under observation at present, a man who has had gastric ulcer symptoms for some years. During the last two years the ulcer has not changed in size according to roentgenological investigation, though his symptoms responded quickly to dietary regime. He consistently has refused surgery.

The literature on medical management cites numerous methods of treatment, some so recent that certainly not enough time has elapsed to properly evaluate results. Most of the therapeutic procedures for ulcer add some type of dietary control, and, as most patients with ulcer respond to a simple soft diet with frequent feedings, one wonders what value the additional therapy may have.

The classical therapy of peptic ulcer has as its basis some form of dietary control. Cruveilhier¹⁵ advocated milk as an ideal food. Leube¹⁶ suggested frequent feedings with milk and recommended bed rest. Lenhartz¹⁷ advised a higher caloric diet, including raw eggs and chopped meat, for he noted an anemia when he employed the Leube diet. Sippy added to the Leube diet alkali and gastric lavage. Shattuck cautioned against the use of high alkali. Einhorn¹⁸ advised the use of the duodenal tube for feeding.

Smithies¹⁹ gave no food by mouth for a period of four to seven days, kept the patient in bed, had him chew paraffin wax, gave rectal feedings, and applied local applications to the stomach. Mouth feedings consisted of carbohydrates—barley water, rice gruel, and cream of wheat—because these leave the stomach quickly. He considered the use of alkali unnecessary or only desirable in small amounts and then used milk of magnesia or calcined magnesia. Spasm was controlled by atropine or bromides per enema.

The diet of Sippy still is most extensively used, *i. e.*, the hourly feedings of ninety c.c. of equal parts of milk and cream from seven a.m. to seven p.m., with the use of alkali between feedings, later adding soft eggs, toast, and cooked cereals. In another few days, custards, cream soups, and

¹⁵ Cruveilhier, cited by Eusterman and Balfour, p. 9.

¹⁶ von Leube, W., "Zur behandlung des magengeschwurs." *Deutsche Medizinische Wochenschrift*, v. 35, pp. 961-64. 1909.

¹⁷ Lenhartz, cited by Eusterman, p. 36.

¹⁸ Einhorn, Max, "Results of duodenal alimentation in peptic ulcer." *Medical record*, v. 96, pp. 95-97. 1919.

¹⁹ Smithies, Frank, "A treatment of gastric ulcer based upon established clinical, histopathological and physiological facts." *American Journal of the Medical Sciences*, v. 153, pp. 547-62. 1917.

¹³ Beazell, James M. and Ivy, A. C., "Chronic gastric ulcer following bilateral vagotomy in the rabbit and in the dog." *Archives of pathology*, v. 22, pp. 213-19. 1936.

¹⁴ Orndorff, John R., Bergh, George S. and Ivy, A. C., "Peptic ulcer and the 'anxiety complex.'" *Surgery, Gynecology and Obstetrics*, v. 61, pp. 162-68. 1935.

pureed vegetables are permitted. Aspiration is not as frequently used today as was Sippy's custom. After four weeks of the above diet, the patient is placed upon three small meals daily with milk and cream hourly and alkali on the half hour as before. Today many deviate at this period in the management and institute the six meal feeding, i. e., three meals consisting of a soft bland diet, with mid-meal feedings, and also alkali between these feedings. Sippy felt that accurate neutralization was essential.

Perhaps the work of Fogelson²⁰ in 1930 on the use of gastric mucin in the treatment of peptic ulcer did more to stimulate investigation and renew hope for an adequate method of curing peptic ulcer than any other recent work. The role of mucin in the physiology of the gastro-intestinal tract was suggested by the work of Linn, who pointed out that at the lower secretory rates the concentration of mucus is higher than during the more active phases of gastric secretion, and that many physicians have noted a decreased secretion of mucus in patients with ulcer. Fogelson therefore attempted to feed mucin to ulcer patients to correct this deficiency. In 1935, he reported the results of this type of therapy among 494 patients treated with mucin throughout the United States. These subjects had been followed for periods of six months to three years. Gastric mucin has afforded relief in 70.5%, partial relief in 23%, and has failed in 6.5%. Of the 494 patients, 217 suffered from intractable ulcers and, of these, 63.1% were given complete relief, 29.4% partial relief, and no relief was noted in 7.5%. Fifty-six individuals in the series had recurrence of symptoms after gastro-enterostomy and, of these, it was possible to obtain complete relief in thirty-six, partial relief in sixteen, but no relief in four.

Recently a form of granulated mucin has been obtainable and the objections of many patients to the taste of the old powdered mucin has been practically eliminated. This granular form may be taken, without suspension, in a vehicle.

Orndorff, Fauley and Ivy,²¹ in an experimental study on dogs on whom the Mann-Williamson operation was performed, found that a combination of gastric mucin and alkali-raw ground pancreas was of prophylactic value in the prevention of chronic ulcer. Some physicians have used effectively a combination of gastric mucin and alkali in peptic ulcer, in conjunction with the six meal a day feedings.

Other organotherapy measures have been used

more recently to control peptic ulcer, namely, the introduction by Rivers²² of a duodenal extract; and by Quigley, Zettelman, and Ivy²³ of a substance from the small bowel called enterogastrome. Pepsin has been introduced by Bremer and Strauss.²⁴

Histidine hydrochloride (Larostidin) was introduced in 1933 by Aron and Weiss.²⁵ By the injection of histidine, they were able to prevent the formation of ulcers in dogs subjected to the Mann-Williamson operation. It was their opinion that the ulcers were caused by an absence of essential amino-acids, for complete protein digestion was not obtained in these animals. The above results led to the use of histidine parenterally in the treatment of patients with peptic ulcer.

Volini and McLaughlin²⁶ in 1936 reported their results in a series of seventy-three patients treated with histidine and observed for a period of six months only. Seventy-nine per cent had symptomatic relief and 21% were described as immediate failures. The patients were given daily doses of 5 c.c. of a 4% aqueous solution of histidine intramuscularly, the total amount ranging from a minimum of ten to a maximum of sixty doses. They recommended that treatment be continued for twenty-four consecutive days. In long-standing cases, Volini and McLaughlin continued the treatment by giving one or two injections weekly.

Bulmer,²⁷ treating fifty-two cases with histidine, found immediate results as follows: 58% had symptomatic cures and disappearance of abnormal x-ray signs, 19% had symptomatic cures but with persistence of radiological signs; and there were 23% failures. His observations on these patients were relatively brief and he was unable to draw final conclusions.

That histidine can produce favorable results during active treatment is substantiated by Eads,²⁸ but these results are not continued and he feels that the permanent results are poorer than in the regular dietary and alkali therapy. This seems to be the present opinion on the use of this drug, though its introduction in the therapy of peptic

²² Rivers, Andrew B., "Clinical consideration of the etiology of peptic ulcer." *Archives of Internal Medicine*, v. 53, pp. 97-119. 1934.

²³ Quigley, J. P., Zettelman, H. J. and Ivy, A. C., "Analysis of the factors involved in gastric motor inhibition by fats." *American Journal of Physiology*, v. 108, pp. 643-51. 1934.

²⁴ Bremer, H. and Strauss, L. H., "Unsere erfahrungen mit der pepsin-therapie (Glaessner) bei ulcus ventriculi und duodeni." *Fortschritte der therapie*, v. 10, pp. 199-205. 1934.

²⁵ Weiss, A. G. and Aron, E., "Traitement des ulcères gastro-duodénaux chez l'homme par les injections d'acides aminés (tryptophane-histidine)." *Comp. Rend. Soc. de Biol.*, v. 112, pp. 1530-31. 1933.

²⁶ Volini, I. F. and McLaughlin, R. F., "The histidine monohydrochloride therapy of gastro-duodenal ulcer." *Illinois Medical Journal*, v. 69, pp. 39-45. 1936.

²⁷ Bulmer, Ernest, "The histidine treatment of peptic ulcer." *Lancet*, v. 2, pp. 1276-78. 1934.

²⁸ Eads, J. T., "The use of histidine hydrochloride (Larostidin) in the treatment of peptic ulcer." *Annals of internal medicine*, v. 10, pp. 639-44. 1936.

²⁰ Fogelson, Samuel J., "The treatment of peptic ulcer with gastric mucin." *Journal of the American Medical Association*, v. 96, pp. 673-75. 1931.

Fogelson, Samuel J., "Gastric mucin treatment for peptic ulcer." *Archives of Internal Medicine*, v. 55, pp. 7-16. 1935.

²¹ Orndorff, J. R., Fauley, G. B., and Ivy, A. C., "The prophylactic value of gastric mucin in the therapy of post-operative jejunal ulcer: an experimental study in dogs." *American Journal of Digestive Diseases and Nutrition*, v. 3, pp. 26-34. 1936-37.

ulcer is too recent to evaluate its efficiency or to completely discard it.

A lipoprotein and emetin has been used intravenously for treatment in peptic ulcer. Its action is said to cause a decrease in gastric peristalsis and to produce a hyperemia of the gastric mucosa and to promote healing. Its action on acidity has not been established. Six to ten injections are given, at intervals of three or four days. Cunha²⁹ observed twenty-nine patients for one year and twenty-two less than one year, and obtained symptomatic relief in all but two cases. However, he allowed his patients to have six glasses of milk daily and a bland diet, and, at the end of four weeks, placed them upon a normal diet. Certainly, with all the vagaries of remissions in peptic ulcer, the observation in this series is too short to make any definite conclusions as to the drug's therapeutic value.

Injections of nonspecific proteins have been used, especially by German clinicians. The authors all report good results. The foreign protein is thought to have some action in changing the tonus of the vegetative nervous system. Its use in this country has not been very extensive. We have tried it on a few cases with indefinite results.

The use of the duodenal tube should be mentioned, perhaps not so much with the idea of feedings and of placing the stomach at rest, but with respect to the more recent trend of using colloidal solutions to prevent the corrosive effect of gastric juice.

In 1922, Epstein³⁰ advised the use of a solution of colloidal iron and Congo red. This solution he felt acted as a mild astringent. He treated only seven cases but had striking relief.

In 1936, Woldman and Rowland³¹ advised the use of a solution (about 1%) of aluminum hydroxide suspension by a continuous drip method into the stomach. A Levine tube inserted nasally carries the aluminum gel which, according to these authors, absorbs gastric acidity, continuously neutralizes gastric juice, and induces functional and motor rest. They report that night pain was promptly relieved and that both gastric and duodenal lesions, apparent in the x-ray film, disappeared in seven to fourteen days.

Jones,³² in 1937, used colloidal aluminum hydroxide in the treatment of peptic ulcer giving 4 cc. to 8 cc. three to four times a day, by mouth.

In addition, a bland diet was given but no one or two hourly feeding, no alkalies, and no injections of any kind were given. Twenty-four patients were observed and the author reports complete relief in all but one instance. He states the number of days required to relieve symptoms and a large percentage showed negative x-ray findings seven to fifty-six days following treatment; but he does not state how long these patients remained free from symptoms.

In 1935, Emery and Monroe³³ made a most extensive review of the results of treatment in 1435 cases of peptic ulcer. They included both medical and surgical results. Of the entire group of patients, they found that there were fewer (17.5%) without symptoms in the group of treated patients than in the untreated (23.8%). Of all the ulcers treated 13.6% had no improvement and 5.1% improved to a minor degree, leaving 81% who were successfully treated. While the surgical treatment gave a higher percentage of continuous relief, its failures were more than double the medical failures. The unfavorable surgical results are explained by the fact that patients who were operated upon had ulcers more difficult to treat and more severe; and that acute complications such as perforation and obstruction were not treated medically. Eighty-one per cent of the surgical cases and only 60% of the medical cases showed some definite complication of the peptic ulcer. Emery and Monroe found in their series that those patients treated with a complete Sippy or partial Sippy regime fared the best, as regards medical and surgical care. They are of the opinion that the most important factor was the following and maintenance of a rigid schedule by the patient with regard to his dietary regime and his habits of living.

Summarizing the methods of handling uncomplicated peptic ulcer, we note that dietary regime plays perhaps the most important role in securing symptomatic relief. The addition of alkali, alkali and mucin, or mucin alone to a dietary control appears to give relief to a larger percentage of patients and the results are more lasting. While histidine, foreign protein, lipo-protein, and so forth, have a large number of followers, their use has not been sufficiently long or extensive to justify adopting them completely.

PERFORATION

The immediate symptom of acute perforation is a sudden severe pain in the epigastrium which is followed shortly and very early by a marked rigidity in the epigastrium. Later shock, with rapid, thready pulse and fall of blood pressure are observed. This clinical picture and the finding of air under the diaphragm in roentgenological investigations are sufficient to diagnose perforated ulcer. A large percentage of perforated ulcer patients

²⁹ Cunha, Felix, "Experiences with a new mode of treating peptic ulcer." *American journal of surgery*, v. 23, pp. 219-34. 1934.

³⁰ Epstein, Albert A., "A simple nonoperative method of treating gastric ulcer." *Journal of the American Medical Association*, v. 79, pp. 1321-23. 1922.

³¹ Woldman, E. E. and Rowland, V. C., "A new technique for the continuous control of acidity in peptic ulcer by the aluminum hydroxide drip." *American Journal of Digestive Diseases and Nutrition*, v. 2, pp. 733-36. 1935-36.

³² Jones, Clement R., Jr., "Colloidal aluminum hydroxide in the treatment of peptic ulcer." *American Journal of Digestive Diseases and Nutrition*, v. 4, pp. 99-102. 1937.

³³ Emery, Edward S., Jr. and Monroe, Robert T., "Peptic ulcer." *Archives of internal medicine*, v. 55, pp. 271-92. 1935.

give some history of previous dyspepsia. Shawan,³⁴ reviewing 356 cases of acute perforated ulcer, found 80% gave a history of previous gastric symptoms. He also noted in this series that perforation appeared to be on the increase since 1920, when compared to the total number of all other operations; and he found that, while there appeared to be an increase in the spring months, summer was the period of greatest frequency.

In considering the treatment of acute perforation, immediate surgery obviously must be done. As to the type of operation, surgeons are still not in full accord. Gastric resection is advised by Yudin³⁵ but he prefers to select patients under forty-five years of age, in reasonably good condition, and in whom the perforation is of recent occurrence. He reports, for 1933-34, 331 resections for perforated ulcer with 26 deaths or a mortality of 7.8%. However, against this radical stand of resection in perforated ulcer, one can find sufficient evidence to warrant a more conservative viewpoint. Shawan prefers a simple type of closure or excision and closure, rather than closure with gastroenterostomy, unless the resulting closure obstructs the outlet of the stomach. Nineteen out of twenty-one patients treated with simple excision of the ulcer and pyloroplasty recovered.

It seems that in view of the fact that a perforated ulcer like the perforation of any abdominal viscus, hazarding life, should be treated in the simplest way and the surgeon should not be concerned with the question of curing the ulcer at that time.

HEMORRHAGE

The incidence of hemorrhage in peptic ulcer has been variously reported as occurring as frequently as one out of every four cases of patients with ulcer. Emery and Monroe in their series of cases found the incidence in a previously reported series 34.8%. In their series reported recently (1935) the percentage was 26.7. Perhaps most ulcers would, however, show some minor bleeding at times were we able to observe them closely enough. In reviewing statistics from various sources, the gross medical mortality from hemorrhage is found to be around 1%.

So far as recognizable hemorrhage in peptic ulcer is concerned, it is generally conceded that the management of choice is medical. There is still some disagreement as to the details of this management with respect to the question of routine feeding soon after the initial bleeding. As to surgical intervention in hemorrhage, Finsterer is of the opinion that it should be considered only in those cases presenting a severe hemorrhage and where a large vessel is thought to be eroded. He

reports a very low mortality in cases operated upon within forty-eight hours, while the late mortality is high, 32.7%. One cannot compare the general medical results with the serious type of hemorrhage operated upon and the resulting high mortality. It is most important in those patients who have gastric hemorrhage to evaluate very early the severity of the hemorrhage. Five per cent of all patients die from hemorrhage, and it is toward this group of patients that more attention should be directed. It will mean a quicker, keener perception of the severity of the hemorrhage and perhaps earlier use of more radical treatment.

As to the subsequent management of the patients with hemorrhage, it is generally accepted that a single hemorrhage is not of itself an indication for surgery, but those patients who have a tendency to recurrent hemorrhage should have some surgical intervention instituted.

We know also that some patients who have been operated upon are still subject to hemorrhage. According to Emery and Monroe, the percentage of patients with hemorrhage after medical treatment was 15.8 and after surgical treatment 20.6. Of those patients who had had one or more hemorrhages before and adequate treatment, the percentage after medical management was 19.3 and after surgical 17.4. The percentage of hemorrhage in patients with no treatment at all is higher—26.

PYLORIC OBSTRUCTION

In the event of the complication of obstruction, particularly in chronic duodenal ulcer, one must distinguish between actual obstruction due to cicatricial narrowing at the pylorus, pyloric spasm, and edema, and other causes of retention frequently neurogenic in origin. True obstruction can be determined by a clinical history of vomiting of some duration, weight loss, the presence of food residues in the stomach obtained on gastric analysis plus the demonstration of an obstructed, dilated stomach by roentgenological examination.

Bremmer³⁴ found that the narrowing of the duodenum following surgical closure of perforated ulcer had little subsequent effect, and in several of his patients who were subsequently operated upon, a normal sized duodenal lumen was demonstrated. All of us have had the experience of treating obstructive ulcers medically and finding them later return to a normal gastric emptying time. No doubt the acute edema disappears after treatment. However, when the obstruction is of long standing and of a high degree, obstruction treated medically does not show such a high percentage of good results as does surgical intervention. At the present time it seems best to attempt to treat the obstructed patient medically for a short time only and if the obstruction persists to advise surgery.

ALKALOSIS

Whenever patients with persistently high gastric acids are taking a large amount of alkali, the possibility of alkalosis must be kept in mind.

³⁴ Shawan, H. K., "Further observations on acute perforated acid ulcer of the stomach and duodenum." *Journal of the Michigan State Medical Society*, v. 36, pp. 629-32. 1937.

³⁵ Yudin, S. S., "Partial gastrectomy in acute perforated peptic ulcer." *Surgery, Gynecology and Obstetrics*, v. 64, pp. 63-68. 1937.

Patients receiving as high as seventy grains soda bicarbonate, fifty to sixty grains calcined magnesium, 100 grains calcium carbonate or bismuth subcarbonate may show toxic symptoms. At the onset, these symptoms are: irritability, frequently a distaste for milk with the complaint that it is sour; subsequently, dull headache starting at the back of the neck, later involving the temples. The patients frequently have nausea and vomiting or dizziness and vertigo. If the alkalosis continues they will complain of muscular soreness of the legs and progressive general weakness. Blood urea in these patients is increased from 50 to 200 mgm. per 100 cc. with a proportionate increase in the creatinine. The CO_2 combining power increases 65 to 110 volumes per cent and there is a decrease in chlorides in the serum. In the urine one frequently finds albumin, casts and red blood cells. This syndrome may develop from three days to three weeks after the commencement of alkali therapy. It is thought that those patients with renal disorders are more inclined to develop this complication. Pyloric obstruction may also be a factor in this intoxication and, for this reason, one should give obstructed patients alkali very cautiously. The treatment for alkalosis as advised by Hardt and Rivers³⁶ is to stop alkalies and to institute two-hourly feedings of milk, cereals, fruit juices, and meat broth.

GASTRO-JEJUNAL ULCER

Gastro-enterostomy for peptic ulcer is still the operation of choice in America among a certain group of physicians, particularly the Mayo group. In England this is also the type of surgery generally employed. However, we are well aware that jejunal ulceration follows this procedure. Hinton³⁷ says that the incidence as reported in the literature of two to three per cent in no way expresses the true incidence of gastro-jejunal ulcer. He found, after five years observation of patients with gastro-enterostomy, that 16.4% returned with a marginal ulcer. Some investigators contend that after gastro-enterostomy the regurgitation of duodenal contents into the stomach produces a gastritis and secretory changes in the gastric mucosa. This may lead, according to Kalk,³⁸ to either an atrophy of the mucous membrane with the resulting diminution of gastric acidity or the development of gastritis, increasing the gastric acid. It is

in these latter patients that he believes gastro-jejunal ulcers occur. Walters and Church³⁹ found a lower incidence of gastritis in cases of duodenal ulcer after performing gastro-enterostomy than was reported by German investigators and they felt that their patients had a less severe degree of duodenal ulceration and edema and less obstruction than the patients in German clinics. These authors, finding gastritis in patients with obstructive carcinoma of the pylorus, and no gastritis in patients with gastric carcinoma without obstruction, concluded that gastritis was associated with pyloric obstruction and that therefore the lowering of gastric acidity after gastro-enterostomy by regurgitation of alkaline duodenal contents was the reason for relief of peptic ulcer. It is thought that there is a higher incidence of marginal ulcer in patients with persisting high acid values after gastro-enterostomy. These facts are significant in the postoperative care and observation of patients upon whom gastro-enterostomy has been performed.

It is not in the scope of this paper to consider just what type of gastric surgery is best in the treatment of peptic ulcer and the question of the advantages of gastric section, pyloroplasty, and so forth cannot be considered here.

SUMMARY

There is still sufficient evidence in the literature of the present divergent views both as to the medical and surgical treatment of peptic ulcer and its complications.

The internist must be aware of the importance of placing his patient upon an adequate regime, both as to diet and the management of his habits throughout his life. The physician and patient must recognize that at this time we have no adequate cure for peptic ulcer but we have a means, in a large percentage of patients, of making them symptomatically free. The patient must understand that laxity in carrying out an accurate program leads to recurrence of symptoms and a higher chance of complications. If the internist will properly impress the patient with these facts, medical management will be proportionately satisfactory.

The surgeon's responsibility must be to evaluate the thoroughness of previous medical management. He must select those patients for surgery who demonstrate disturbed gastric physiology and select that type of surgical procedure which will best correct that phase of the ulcer patient's digestive mechanism.

Both internist and surgeon can only hope, according to statistics today, for a high percentage of symptomatic relief; and must appreciate the fact that there is a certain group of patients who continue to have symptoms regardless of the type of treatment followed.

55 EAST WASHINGTON STREET

³⁶ Rivers, Andrew B., "The use of duodenal extract as an adjuvant in the treatment of benign peptic lesions: report of eight cases." *American Journal of Digestive Diseases and Nutrition*, v. 2, pp. 189-95. 1935-36.

³⁷ Hinton, J. William and Church, R. E., "The incidence of gastro-jejunal ulcer following gastro-enterostomy." *Surgery, Gynecology, and Obstetrics*, v. 60, pp. 65-73. 1935.

³⁸ Kalk, Hienz, "Gastritis." *Deutsche Medizinische Wochenschrift*, v. 60, pp. 236-40. 1934.

³⁹ Walters, W. and Church, G. T., "Gastritis, a phenomenon of pyloric obstruction and its relation to duodenal ulcer." *Minnesota Medicine*, v. 18, pp. 206-12. 1935.

The Indianapolis Convention

OCTOBER will be Convention Time in Indianapolis once more! Indianapolis is happy to welcome the Indiana State Medical Association for the eighty-ninth annual session to be held Tuesday, Wednesday, and Thursday, October 4, 5, and 6. Every person who is participating in arrangements for this convention is determined to do his part to make this the biggest and best meeting that the Association ever has held, and to make each visitor enjoy his stay in Indianapolis.

Indianapolis is one of the few made-to-order cities of the United States. The city was laid out in 1821, and the plan of the city undoubtedly was suggested by that of the City of Washington. It is the largest city in the world which is not on a navigable waterway.

HOSPITALS

Hospital facilities in Indianapolis are more than adequate. The city is served by the Indianapolis City Hospital, the group of hospitals at the Indiana University Medical Center (including Robert W. Long Hospital, the James Whitcomb Riley Hospital for Children, the William H. Coleman Hospital for Women), the Methodist Hospital, St. Vincent's Hospital, St. Francis Hospital, the Veterans' Administration Hospital, the Central Indiana Hospital for the Insane, and a number of privately operated hospitals and sanitariums, among which are Dr. W. B. Fletcher's Sanatorium ("Neuronhurst") and Albert E. Sterne Memorial Hospital ("Norways").

The Indiana University Medical Center will be particularly interesting to visitors who have not seen the new dental school building and the new clinical building which was dedicated

only recently.

Sunnyside Tuberculosis Sanatorium is located at Oaklandon, only a few miles north of Indianapolis.

POINTS OF INTEREST

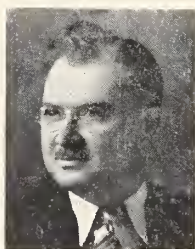
Murat Temple, convention headquarters, is located at Massachusetts Avenue and New Jersey Street, barely five minutes ride from the heart of the city. This beautiful building provides an ideal meeting place. The Murat Theater has a comfortable seating capacity of 2,500. Lobbies and corridors provide 60,000 square feet of exhibit space.

The Benjamin Harrison Memorial is the most recent addition to places of historic and artistic interest in Indianapolis. Within the past year, the home of Benjamin Harrison, twenty-third president of the United States, has been restored and furnished in the period of Harrison's occupancy (1872 - 1901).

Many of the original furnishings have been used. This project has been completed by the Arthur Jordan Conservatory of Music, the campus of which adjoins the Harrison Home on the south. The restored home is now open to the public. It is located at 1228 North Delaware Street.

World War Memorial.

Indianapolis is justly proud of this memorial which covers five entire city blocks in the very heart of the downtown district. The entire project cost the city, county, and state \$15,000,000, and it is distinctly worth the time of any visitor to go through these buildings. The main shrine is bounded on the north by the Indianapolis Public Library, and on the south by the Federal Court House and Postoffice Building, a new addition to which has only recently been dedicated and is not yet completely



Norman M. Beatty,
M.D., Chairman,
Committee on
Arrangements



Murat Temple—Convention Headquarters

finished. The American Legion National Headquarters Building occupies a portion of the plaza.

The main shrine is open daily from 10:00 a.m. to 4:00 p.m. The flag shrine room is richly decorated with fourteen large granite pillars extending from the floor to the 120-foot ceiling.

Soldiers' and Sailors' Monument, located on the Circle, was completed in 1901 at a cost of \$600,000. The monument, dedicated to "Indiana's Silent Victors," is 284½ feet in height and from its observation platform the visitor may get a bird's eye view of the city. There is an interesting museum in the basement of the monument.



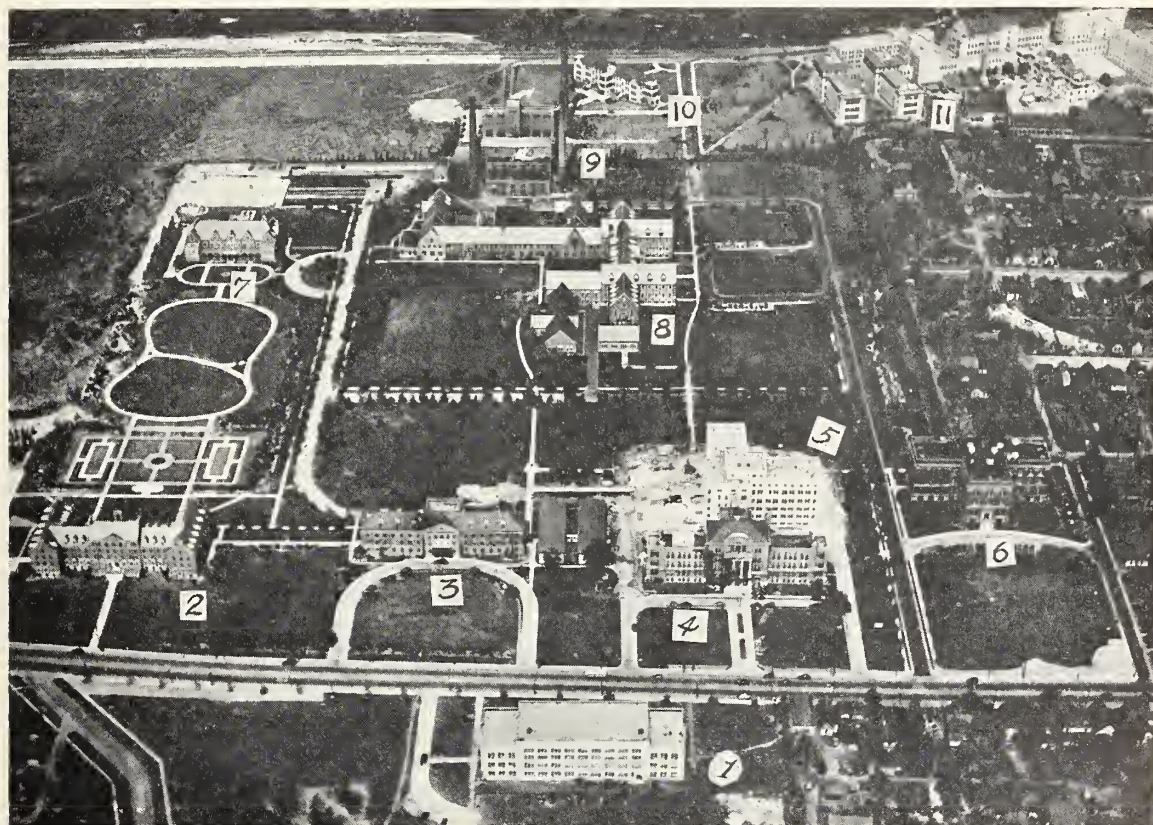
Indiana State Capitol

Motor Speedway. The Indianapolis Motor Speedway, internationally famous, is located two and one-half miles northwest of Monument Circle. The scene of the annual Memorial Day five hundred mile race is always of interest to the sports fan.

The *James Whitcomb Riley Home* in Lockerbie Street has become a shrine to those who love the verses of the immortal Hoosier Poet. It is open to visitors daily.

Fort Benjamin Harrison, located ten miles northeast of Indianapolis, is one of the best known army posts in the country. A regular army detachment is stationed there.

The *Municipal Airport*, on the National Road



Indiana University School of Medicine and Hospitals. 1. IU School of Dentistry; 2. Ball Nurses Home; 3. Wm. H. Coleman Hospital; 4. Robert W. Long Hospital; 5. New Clinical Building; 6. Medical School Building; 7. Kiwanis convalescent unit; 8. Riley Hospital for Children; 9. power plant; 10. Flower Mission Hospital; 11. Indianapolis City Hospital.

Indianapolis

(at right)
Hotel Washington
Columbia Club
Spink-Arms



(at right)
Lincoln Hotel
Marott Hotel



(at left)
Severin Hotel



Claypool Hotel

Indianapolis
Athletic Club



Indianapolis Country Club where the golf tournament will be held.

west of Indianapolis, embraces 1,000 acres and is one of the finest in the country and has been given an A-1-A rating by the United States Department of Commerce. Three transcontinental air lines serve Indianapolis.

John Herron Art Institute is open from 9 a.m. to 5 p.m. on week days.

Other points of interest for the sightseer are the Scottish Rite Cathedral, Butler University, the Children's Museum, the State Capitol, State Library, the American Association Ball Park, the homes of Booth Tarkington, Meredith Nicholson, and Kin Hubbard. Of especial interest to visiting doctors will be the plants of Eli Lilly & Company and of the Pitman-Moore Company, and there are numerous other industrial plants in Indianapolis which may be of interest to the individual visitor.

Indianapolis schools are well known. Arsenal Technical High School, one of the largest high schools in the country, has an attendance of more than 6,000. It is one of six high schools in Indianapolis.

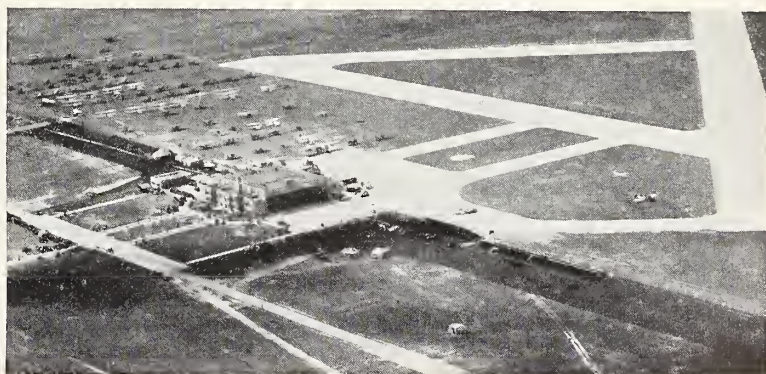


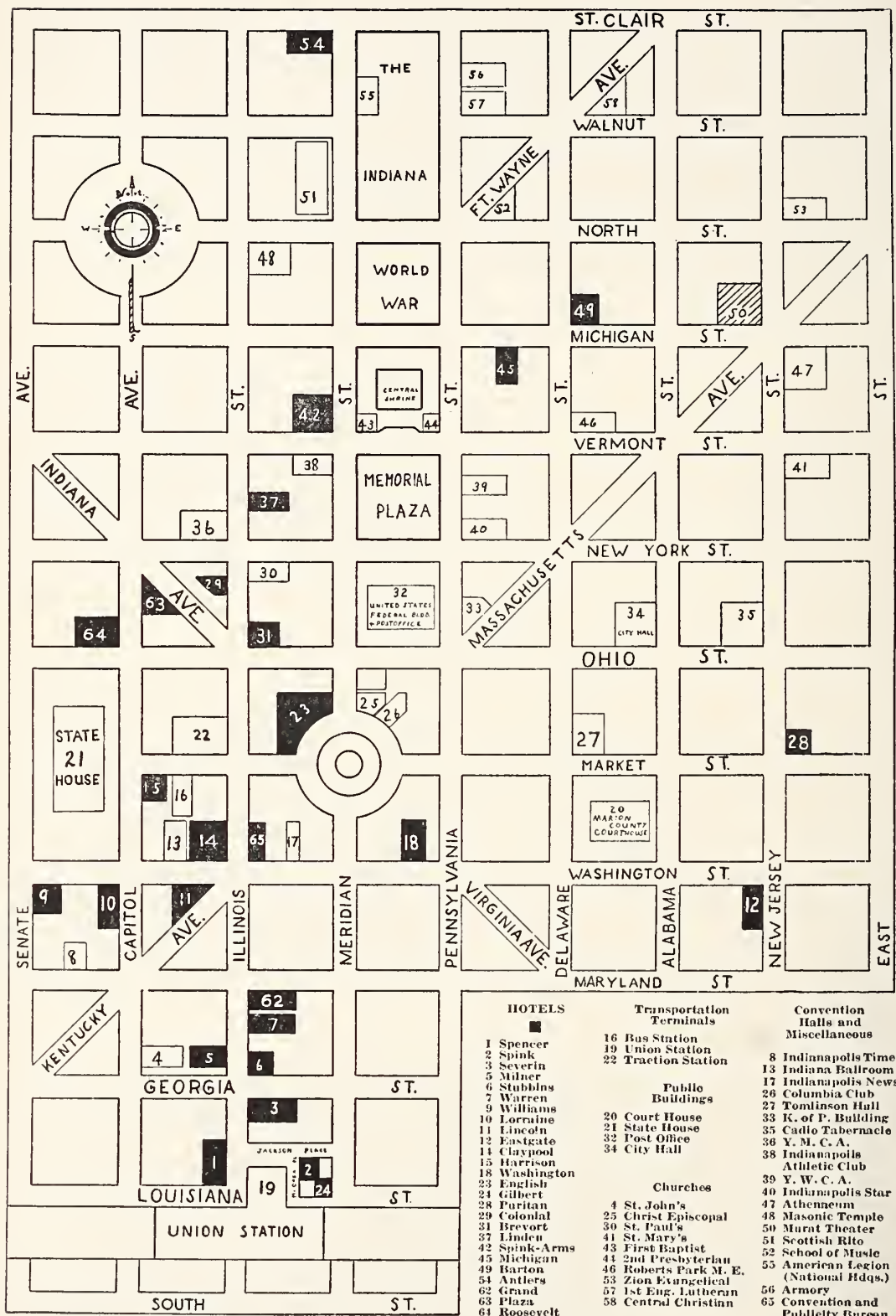
John Herron Art School and Museum



James Whitcomb Riley Home

Indianapolis
Airport
Three Transcontinent
Airlines make stops
here.





ARCHERY AND TRAP SHOOT

The annual trap shoot will be held at the Indianapolis Skeet Club, Sixteenth Street and Emerson Avenue. This event gains in interest each year.

Archers will have an opportunity to show their skill if a sufficient number advise the committee chairman that they will participate. (See notice on page 468).

GOLF

The annual golf tournament will be played at the Indianapolis Country Club. (Details on page 467).

Golfers may be interested in the other courses in Indianapolis: the Woodstock Country Club, the Highland Golf and Country Club, the Meridian Hills Country Club, the Broadmoor Country Club, and the Hillcrest Country Club. In addition, Indianapolis has five municipal golf courses: Coffin, South Grove, Riverside, Pleasant Run, and Sarah Shank.

OTHER MEETINGS

The Indiana State Association of Health Officers will hold their meeting in Indianapolis on Monday, October 3, immediately preceding the convention. Their meetings will carry over until noon on Tuesday, October fourth.

ROUTES

Highways into Indianapolis are Number 40, east and west; Number 31, north and south; Numbers 52 and 29, northwest and southeast; Number 67, northeast and southwest; Numbers 34 and 36, west; Numbers 13 and 431, north.

Three transcontinental air lines serve Indianapolis. Railroads coming into the city include the Pennsylvania, Big Four, Monon, and Baltimore and Ohio.

PLACES OF MEETING

Headquarters for all scientific and general meetings of the convention will be in the Murat Theater where there is ample room to accommodate every phase of the convention. The annual banquet, too, will be held in the Murat Theater and guests will be comfortably seated in the theater auditorium following the banquet to hear the speakers.

Indianapolis hotels are listed on page 514.

ENTERTAINMENT

Golf is the first item in the recreational program for the convention, the tournament beginning at 9:00 a.m. on Tuesday, October fourth. Tuesday at 12:30 p.m. the archers and the trap shooters will have their contests.

The women will have a tour on Tuesday which will include visits to the Scottish Rite Cathedral and the World War Memorial. In the evening there will be a reception honoring officers of the Auxiliary to the Indiana State Medical Association; this will be held at the Columbia Club. The feature of the reception will be a travel talk by Mrs. Demarchus Brown.

Women physicians will have their meeting Tuesday evening at the Propylaeum, and the usual smoker and stag party for the men will be held in the Egyptian Room of the Murat Temple.

Fraternity luncheons will be held Wednesday noon. The annual Auxiliary breakfast and business meeting will be held Wednesday morning at the Indianapolis Athletic Club. A musicale, style show and tea will feature the Wednesday afternoon entertainment for women at L. S. Ayres and Company, and on Thursday they will have an opportunity to join in a sightseeing tour of Indianapolis.

The annual banquet will form the Wednesday evening entertainment, at the Murat Theater.



Butler University



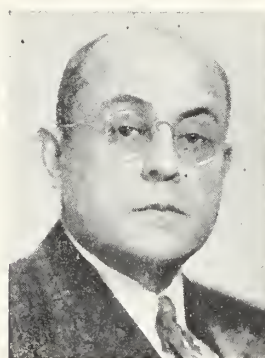
HERMAN M. BAKER, M.D.
President
Indiana State Medical Association
1938



E. M. VAN BUSKIRK
President-Elect
Fort Wayne



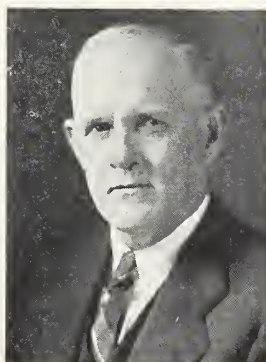
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Executive Secretary and
Managing Editor of
THE JOURNAL
Indianapolis



A. F. WEYERBACHER
Treasurer
Indianapolis



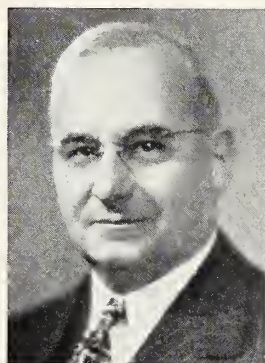
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Chairman
Executive Committee
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C. H. McCASKEY
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M. A. AUSTIN
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South Bend



W. C. WRIGHT
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Section on Surgery
Fort Wayne



W. L. PORTEUS
Secretary
Section on Medicine
Franklin



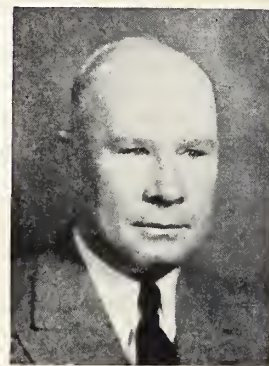
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Editorial Board
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JAMES B. MAPLE
Editorial Board
Sullivan

Announcements

REGISTRATION

Registration will begin Tuesday morning, October fourth, at 8:00 a. m. Registration booth will be in the lounge room of the Murat Temple. When you register, you will receive your official badge. **Please wear it!**

* * *

Remember your membership card! Take it with you when you register. It will save time and avoid inaccuracies in the spelling of names. If you have not received your membership card, present a receipt from your county society secretary and you will be permitted to register.

* * *

ESSAYISTS

Essayists are asked to remember that all papers presented before the meetings of the Indiana State Medical Association become the property of the Association and, therefore, are not to be published or submitted for publication elsewhere than in The Journal of the Indiana State Medical Association. Your paper should be deposited with the reporter at the meeting immediately after it is read.

* * *

FRATERNITY AND CLASS REUNION LUNCHEONS

Fraternity and class reunion luncheons are scheduled for Wednesday noon, October fifth.

The Phi Beta Pi fraternity will have a meeting at the Athenaeum (across the street from the Murat Theater) at 12:00 o'clock, Wednesday noon.

* * *

The Medical Veterans' Luncheon meeting will be held at 12:15 p.m. October fifth (Wednesday) at the Athenaeum.

* * *

The annual luncheon of the Phi Chi medical fraternity, for both active and alumni members, will be held Wednesday noon, October fifth. Detailed arrangements for the luncheon will be announced in the October issue of THE JOURNAL.

* * *

VISIT INDIANAPOLIS HOSPITALS

Out-of-town members of the Indiana State Medical Association will find it profitable and interesting to visit the Indianapolis hospitals. Each of the hospitals will appreciate the opportunity to conduct visitors about their institutions.

* * *

HOUSE OF DELEGATES

The first meeting of the House of Delegates will be held in the Murat Temple, at four o'clock in the afternoon of Tuesday, October fourth.

The second meeting—the breakfast meeting—will be held at seven o'clock Thursday morning, October sixth, at the Indianapolis Athletic Club.

THE COUNCIL

The Council will hold its first meeting at 12:30 p. m., a luncheon meeting, at the Indianapolis Athletic Club, Tuesday, October fourth.

The second meeting will be held immediately following the meeting of the House of Delegates at the Indianapolis Athletic Club, Thursday morning, October sixth.

* * *

THE ANNUAL BANQUET

The Annual Banquet will be served in the Murat Banquet Room, Murat Temple, Wednesday evening, October fifth. Speakers will be:

Rock Sleyster, M.D., Wauwatosa, Wisconsin, president-elect of the American Medical Association.

Dr. George E. Vincent, Greenwich, Connecticut, whose subject will be "The Pain of Thinking."

Get your banquet tickets early.

Calling All Golfers!

The State Medical Golf Tournament will be held at the Indianapolis Country Club on October 4, 1938.

Directions for getting to the Country Club: Sixteenth Street west to southwest corner of Speedway, then angle northwest on Crawfordsville Road (Road No. 34) approximately four miles, past Clermont Girls' School. The golf course is on the left (south) side of State Highway No. 34.

Starting time: 8:00 a. m. and thereafter.

Fees: \$2.50 for greens fee and luncheon.

Prizes will be awarded as follows:

1. Usual low gross and low net prizes.
2. Longest drive on hole No. 10.
3. Closest to pin on No. 4.
4. Fewest putts.
5. Best "poker hands."
6. Other special prizes.

Free transportation from Murat Theater available every half hour from 8 until 11 a. m.

The committee has made every arrangement for the golfers to have a splendid tournament. The prize committee is Dr. William Dugan (chairman), Dr. William Wright, and Dr. R. R. Hippensteel.

Golf Committee:

KARL RUDDALL, M.D., *Chairman*
 CLEON NAFE, M.D., *Vice-Chairman*
 CARL McCASKEY, M.D.
 J. W. WRIGHT, M.D.
 PAUL HURT, M.D.
 R. R. HIPPENSTEEL, M.D.
 JOHN KINGSBURY, M.D.
 WILLIAM DUGAN, M.D.
 LACEY SHULER, M.D.

Archery

At the request of the General Arrangements Committee for the Indiana State Convention, there is to be archery for the archers, as well as golf for the golfers. As this is a new venture, it will be absolutely necessary for each archer to notify the archery committee not later than September tenth of his or her intention of shooting. In order that this part of the entertainment will be what you want, be sure to answer the following questions:

1. Do you wish to shoot all day Tuesday, October fourth?
2. Would you prefer to shoot only for a half day?
3. If so, do you prefer morning or afternoon?

After compiling your replies, definite plans will be made and announcement will be published in the October Journal in order that you may know before arrival when and where to meet. It will, of course, be necessary for each one to bring his own tackle.

W. P. Morton, M.D., Chairman,
623 Hume Mansur Building.

Euclid T. Gaddy, M.D.
Frank W. Teague, M.D.
John H. Warvel, M.D.

Trap and Skeet Shoot

On October 4, 1938

AT THE INDIANAPOLIS SKEET CLUB
Corner of 16th St., and Emerson Ave.

TRAPS OPEN FOR PRACTICE AT 11 A. M.
MAIN EVENTS START PROMPTLY AT 12:30 P. M.

PROGRAM

100 targets—16 yard rise.

Entrance fee including targets only—\$1.60.

On this event will be determined the winner of the Orange County Medical Society Trophy now held by Dr. C. M. Donahue of Carmel.

* * *

Handicap—50 targets—yardage to be determined by score on first event and known ability.

Entrance fee including targets only—\$0.80.

* * *

Doubles—(if desired by shooters) 25 pair—16 yard rise.

Entrance fee including targets only—\$0.80.

SKEET

50 targets all bore.

50 targets small bore 20-28-410.

Entrance fee for each event in skeet—\$0.80 per event.

PRIZES

Orange County Medical Society Trophy will be decided on the high gun score of the 100 target—16 yard rise event.

First 2 high guns in Class A, B, C, & D, at 16 yards will each receive a handsome prize.

First 2 high guns in Handicap will each receive a handsome prize.

First 2 guns in Handicap will each receive a handsome prize.

The high gun in doubles will receive a handsome prize if this event is shot with more than one squad shooting.

Minimum number for the event to be held—10 shooters.

First 2 high guns in all bore—Skeet.

First 2 high guns in small bore—Skeet.

High gun over all in Trap—a prize.

High gun over all in Skeet—a prize.

DIRECTIONS FOR REACHING THE SKEET CLUB

Go east on New York Street to the 5200 block (which is Emerson Avenue), turn left, go north to 16th Street. Roderick Filling Station is on the left at the intersection. Turn right. The skeet club is in plain view, about one-tenth mile to the entrance, on the left side of the road. Parking space is plentiful.

Lunches, sandwiches and soft drinks will be made available by the concession department of the gun club at regular prices. All standard makes of shells will be available at regular prices.

You "Docs" who think well of your shooting ability, come out and demonstrate that you have sufficient grounds for such an opinion or give us indication that you have promise of bearing out your opinion. There are excellent prizes and a large crowd of shooters is expected. If some one gets a prize whom you know you can trim at this game, don't blame it on anybody but yourself if you don't come out and grab this prize. If you think you are good enough to take Dr. Cox for a whirl or the Champion Donahue, our prize vocalist on the firing line, it is your duty to be there. If you are just a beginner, the committee says "come on and shoot" because prizes are offered to the beginners as well as to the older shooters.

L. A. ENSMINGER, *Chairman*,

J. A. MACDONALD,

R. H. MOSER,

H. M. BANKS.

Official Program

Annual Session

INDIANA STATE MEDICAL ASSOCIATION

October 4, 5 and 6, 1938

MURAT TEMPLE

(Schedule will be carried out on Central Standard Time)

MONDAY, OCTOBER 3, 1938

Meeting of state health officers. (See program on page 474.)

8:00 p.m. Executive Committee meeting, Columbia Club.

TUESDAY, OCTOBER 4, 1938

MORNING

8:00 a.m. Registration starts, lounge room, Murat Temple.

8:00 a.m. Opening of scientific exhibit and commercial exhibits, lounge room, Murat Temple.

9:00 a.m. Annual golf tournament. Eighteen holes, low gross and handicap medal play, Indianapolis Country Club. Fees, \$1.75, including greens fee and luncheon.

NOON

12:15 p.m. Golfers' luncheon, Indianapolis Country Club.

12:30 p.m. Annual trap shoot, Indianapolis Skeet Club, Sixteenth St. and Emerson Ave.

12:30 p.m. Council meeting, Indianapolis Athletic Club.

AFTERNOON

4:00 p.m. Meeting of House of Delegates, Murat Theater.

EVENING

6:30 p.m. Annual dinner meeting for women physicians, Propylæum.

7:00 p.m. Smoker and stag party, Egyptian room, Murat Temple.

Award of golf and trap shooting prizes.

WEDNESDAY, OCTOBER 5, 1938

MORNING

8:00 a.m. Registration continues, lounge room, Murat Temple.

8:00 a.m. Scientific and commercial exhibits, lounge room, Murat Temple.

GENERAL MEETING, MURAT THEATER

9:15 a.m. Call to order by Herman M. Baker, M.D., Evansville, president, Indiana State Medical Association.

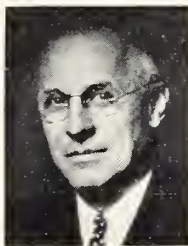
Greetings and introduction of president of Indianapolis Medical Society, Robert M. Moore, M.D., by Norman M. Beatty, M.D., chairman of Committee on Arrangements.

9:25 a.m. Address of welcome by Walter C. Boetcher, Mayor of Indianapolis.

9:30 a.m. President's address, Herman M. Baker, M.D., Evansville.

SCIENTIFIC PROGRAM

9:50 a.m. **Henry F. Helmholz, M.D.**, Professor of Pediatrics, University of Minnesota Graduate School of Medicine, Minneapolis-Rochester, Minnesota.



Dr. Helmholz

Subject: **Recent Advances in Pediatrics as Applied to General Practice.**

ABSTRACT: 1. Sulfanilamide Treatment: (a) Streptococcus hemolyticus infections, (b) Gram-negative diplococcus infections, (c) Urinary infections.

2. Vitamin studies: (a) Isolation of crystalline substances; (b) Determination of human deficiency.

3. Internal secretions: (a) Isolation and identification of various potent

substances; (b) Dangers.

4. Electro-encephalogram and diphenyl-hydantoin in diagnosis and treatment of epilepsy.

10:20 a.m. Questions.

10:30 a.m. Speaker to be announced.

Subject: **Pneumonia.**

11:00 a.m. Questions.

11:10 a.m. **Henry S. Ruth, M.D.**, Associate Professor of Anesthesia, Hahnemann Medical College and Hospital, Philadelphia.



Dr. Ruth

Subject: **Physical Signs of Inhalation Anesthesia.** (Motion picture.)

ABSTRACT: This twenty-five minute motion picture portrays the physical signs manifested by patients at varying levels of inhalation anesthesia. The classification of physical signs employed is that which is taught in the accepted institutions for special training in anesthesia. A few of the current ideas of modern anesthetic practice will be discussed informally during the showing of the film.

11:40 a.m. Questions.

NOON

12:15 p.m. Fraternity, class and ex-service men's luncheons and get-togethers.

AFTERNOON

WEDNESDAY, OCTOBER 5, 1938

SECTION MEETINGS
MEDICAL SECTION

Chairman, George Dillinger, French Lick.

Vice-Chairman, B. G. Keeney, Shelbyville.

Secretary, Walter L. Portteus, Franklin.

(MURAT THEATER)

2:00 p.m. Leon L. Blum, M.D., Terre Haute.

Subject: **Newer Concepts in the Interpretation of Anemias.**

ABSTRACT: The progress in hematology during the last decade fundamentally changed our conceptions of anemias. The role of the diet and gastro-intestinal disturbances received due consideration as important etiologic factors. Many hitherto obscure forms of anemia are now recognized as specific deficiency states (deficiency of iron, liver extract, etc.). As the result, the division of the anemias into the primary and secondary group has been discarded. The reasons for it will be briefly discussed and another simple classification of anemias substituted. Factors governing the normal and pathologic erythropoiesis will be briefly reviewed in their practical significance and physiologic principles in the treatment of anemias outlined. It has been shown that the size and hemoglobin contents of the red blood cells in anemia are the result of fundamentally different disturbances of the erythropoiesis. The exact determination of the hematologic type of anemia in many cases furnishes a valuable diagnostic clue. A complete, competent laboratory examination is essential for proper interpretation and treatment. Recently improved technic of the macroscopic and microscopic examination of blood greatly facilitates the interpretation. Some practical suggestions suitable for routine hematologic examinations in the office will be given. Lantern slide demonstration will follow.

2:20 p.m. C. J. Clark, M.D., Indianapolis.

Subject: **Some Points Concerning the Diagnosis of Heart Disease.**

ABSTRACT: The first point considered in this paper will be what constitutes a cardiac diagnosis. Further points will be (1) the importance of an etiological diagnosis; (2) some general points to facilitate a structural diagnosis; (3) some specific means of arriving at an evaluation of the functional ability of the heart.

2:40 p.m. Symposium on Syphilis:

1. Wemple Dodds, M.D., Crawfordsville.
Laboratory Diagnosis of Syphilis.

ABSTRACT: The extreme importance of the dark-field method of examination of suspected primary lesions is emphasized. The importance of multiple examinations, when doubt exists concerning the nature of the lesion, is stressed.

The technique of dark-field examinations and the meticulous attention to details necessary to its proper performance is described.

In addition to the dark-field examination, serological tests should be performed during the initial stages of syphilis. The percentage of positive tests obtained during the primary stage and the clinical significance thereof is discussed.

The more common laboratory tests for the sero-diagnosis of syphilis are described briefly, and an attempt to evaluate their relative importance is made. A discussion of flocculation tests and their value as "exclusion tests" for syphilis concludes the discussion.

2. Minor Miller, M.D., Evansville.

The Health Department in Syphilis Control.

ABSTRACT: The role of the Health Department in Syphilis Control must include: (1) Provision of facilities for diagnosis and treatment for patients unable to pay for these services. (2) Provision of consultation service for private practitioners. (3) Provide the follow-up personnel for the follow-up of all delinquent patients. (4) Seek out the sources of infection and contacts of all patients with recent infections, or patients in an infective stage of the disease, and see to the examination and treatment when indicated. (5) Police the job and enforce treatment through quarantine measures when necessary. (6) Lead in the dissemination of information to the public in the education of the citizens in their part in the effort to control this disease.

3. F. R. Nicholas Carter, M.D., South Bend.

The Treatment of Late Syphilis.

ABSTRACT: (1) General problems of the physician and the patient. (2) Definite system of importance in early treatment. In late case of syphilis, treatment must be individualized. (3) Prophylactic treatment. (4) Treatment after chancre has developed. (5) The time factor. Length of time required for treatment. (6) Most syphilis undertreated. Time and observation are the sovereign test of cure. Ideal treatment of late syphilis is the adequate treatment of early syphilis. (7) General theory of modern treatment. Discussion of four drugs—mercury, bismuth, the arsenicals and the iodides. Modes of action of these four drugs—specificity vs. non-specificity. (8) Effect of antisyphilitic medicaments on the host. (9) Discussion of the relative value of continuous treatment contrasted with rest periods.

4. C. L. Williams, M.D., Logansport.

Cerebrospinal Lues and Its Treatment.

ABSTRACTS: An attempt will be made to discuss the incidence of neurosyphilis among the cases of syphilis, and among the population of the mental hospitals of the state, with a few notes on its economical implications. A plea will be made for early diagnosis and treatment. An attempt will be made to show wherein the treatment of neurosyphilis differs from the treatment of early syphilis. Also, a short discussion on the modus operandi of the nonspecific treatment of neurosyphilis. Finally, there will be an attempt to appraise the results of treatment of neurosyphilis.

3:20 p.m. Questions.

3:30 p.m. Election of section officers.

3:40 p.m. E. Rogers Smith, M.D., Indianapolis.

Subject: **Metrazol in the Treatment of Schizophrenia.**

ABSTRACT: A brief review of the literature. Method of treatment. Some case histories. Summary of results.

4:00 p.m. Frank W. Peyton, M.D., Lafayette.

Subject: **The Management of Abortion.**

ABSTRACT: A method of managing the complete, the inevitable, and the incomplete abortion is presented. The treatment must vary according to the findings in each patient.

In the complete uncomplicated abortion only rest and supportive therapy are necessary.

In the non-infected incomplete and inevitable abortions active therapy is advocated, the type of interference depending upon the period of gestation.

In the infected case, delayed evacuation is proposed; employing noninterference for five days with rest, fluids, high caloric diet, ergotrate, sulfanilamide, transfusions, laxative, and sedative. After five days and without completion of the abortion, one may resort to dilatation and curettage.

The merits of hospitalization are considered, the advantages of transfusions stressed, and the use of sulfanilamide is discussed in detail. The infected or potentially infected case is the one which we must continually search for most suspiciously and then handle most judiciously.

4:20 p.m. Walter E. Dandy, M.D., Baltimore, Maryland.

Subject: **Meniere's Disease.**

ABSTRACT: The symptoms of Meniere's Disease consist of recurring attacks of dizziness in which objects rotate. It is particularly distressing because of the severity of the attacks. The condition is always due to a lesion in the auditory nerve, and associated with its progress there is subtotal deafness in one ear and tinnitus in the same ear. Between the attacks the patient is perfectly well. The attacks come on without warning and without any apparent predisposing cause.

The attacks are permanently abolished by partial or total section of the eighth nerve. This operative procedure is attended with practically no risk to life or function.

5:00 p.m. Questions.

5:10 p.m. Adjournment.

SURGICAL SECTION

Chairman, Paul Beard, Indianapolis.

Vice-Chairman, Frank Ramsey, Indianapolis.

Secretary, William C. Wright, Fort Wayne.

(MURAT CANDIDATES ROOM)

2:00 p.m. Wayne R. Glock, M.D., Fort Wayne.

Subject: **Treatment of Hip Fractures.**

ABSTRACT: A brief history of the recent trend to internal fixation of intracapsular hip fractures by various methods is

given. The types of hip fractures are discussed as to the site of fracture line, difference in treatment and prognosis. It establishes premise for internal fixation and compares the advantages and the disadvantages of types of internal fixation, particularly the multiple pinning method and the use of the Johansen nail. This paper is not based upon statistics but upon the writer's experience with the Gaenslen multiple pinning method and the use of the Johansen modification of the Smith-Petersen nail. The paper is illustrated with lantern slides.

2:20 p.m. Discussion: C. F. Thompson, M.D., Indianapolis.

2:30 p.m. Coen L. Luckett, M.D., Terre Haute.

Subject: Treatment of That Acute Belly.

ABSTRACT: This paper will have to do with the indication and treatment of the acute abdomen, especially having to do with the operative and post-operative care.

2:50 p.m. Discussion: Russell Malcolm, M.D., Richmond.

3:00 p.m. H. O. Mertz, M.D., Indianapolis.

Subject: Undescended Testicle.

ABSTRACT: Retrogressive changes occur in the maldescended testicle after puberty. Endocrine therapy may hasten the descent of the testicle before puberty, but if such treatment fails the testicle should be surgically placed in the scrotum. The infrequency of spontaneous descent after puberty contraindicates a policy of waiting and endocrine therapy has a very limited field of usefulness in furthering the descent after the eleventh or twelfth year of life.

Successful surgical treatment depends upon the age when the operation is performed; painstaking care in freeing the cord structures from their attachments, and in conserving sufficient vascular supply to the testicle to insure its continued growth.

Eighty-nine cases of maldescended testicle observed in the University Hospitals are reviewed. Of these, sixty-eight were operated, four of which had endocrine therapy. Twenty-one of the series were not operated, and of these, seven had endocrine therapy.

3:20 p.m. Discussion: W. P. Morton, M.D., Indianapolis.

3:30 p.m. George F. Green, M.D., South Bend.

Subject: Appendicitis.

ABSTRACT: The mortality rate of acute appendicitis has not been materially reduced in the past twenty years, and inasmuch as the operative mortality of non-perforated cases is practically nil, the profession must strive to impress the laity with the necessity of prompt diagnosis and care.

A group of cases is discussed, with reference to clinical and laboratory findings, with suggestions as to operative and post-operative care that have resulted in a definite reduction of mortality in cases with perforation, as well as reduction in time of disability in all cases.

3:50 p.m. Discussion: Joseph H. Clevenger, M.D., Muncie.

4:00 p.m. Murray N. Hadley, M.D., Indianapolis.

Subject: The Surgical Treatment of Carcinoma of the Pelvic Colon.

ABSTRACT: Cancer of the pelvic colon has proven a difficult lesion to treat.

The only known methods of treating cancer are x-ray or radium therapy or radical excision. The inaccessibility of the location of cancer of the pelvic colon has made x-ray or radium therapy unsatisfactory. Local excision, either by cautery or the knife, fails to cure because the zone of spread is beyond the attack. The principles of cancer surgery, which means a wide removal of the local lesion together with the zone of spread, must be applied to cancer of the pelvic colon, as well as other organs, if a cure is obtained.

The combined abdomino-perineal excision, as proposed by Miles and now used by many leading surgeons in this country, appears to offer the most hope for a permanent cure. The operation is an extensive one and unless careful selection as to operability, adequate preoperative and intelligent post-operative care are observed, a high mortality will occur. This operation presumes a permanent abdominal anus which is neither a prohibitive social or functional liability to the patient.

4:20 p.m. Discussion: William H. Garner, M.D., New Albany.

4:30 p.m. Election of section officers.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman, D. A. Bartley, Indianapolis.

Vice-Chairman, Carroll O'Rourke, Fort Wayne.

Secretary, Eugene L. Bulson, Fort Wayne.

(MURAT EGYPTIAN ROOM FOYER NO. 1)

2:00 p.m. Hugh A. Kuhn, M.D., Hammond.

Subject: Allergy in Relation to the Eye, Ear, Nose and Throat.

ABSTRACT: In reviewing a group of the average cases that come to a rhinologist for rhinologic advice and management, we find that about one in every five gives some symptoms of an allergic manifestation. That is, they have itchy eyes, or nose, sneezing, watery discharge, congestion, obstruction to breathing, restless sleep, frequently pale edematous mucous membrane with polypoid degeneration and hyperplasia or polypus masses, and have a high incidence of eosinophilic cells in the nasal mucus when it is stained and a differential count made. An analysis of the statistics as to incidence of the tendency, the allergins to blame, and some suggestions as to management are made.

2:20 p.m. Discussion: E. L. Van Buskirk, M.D., Lafayette.

2:30 p.m. William F. Gessler, M.D., Fort Wayne.

Subject: Sinusitis—Its Diagnosis and Non-Operative Treatment.

ABSTRACT: We must differentiate bacterial sinusitis from (1) true allergic states (2) "allergic like" reactions produced by (a) glandular dysfunction or hypofunction (b) hyperventilation from obstructive nasal malformation or hypertrophies.

Careful history, cytology of sinus secretions, blood cholesterol and basal metabolism determinations are valuable aids in diagnosis. Local appearance of nasal mucosa may be misleading.

Combinations of sinus infection, nasal allergy, and hypofunction are often found in the same patient. Our therapy must take each into consideration.

Instillation of ephedrine, neosynephrine or propadrine in the lateral head low position, with nasal packs or with displacement is excellent therapy, along with parenteral use of iodine or camtol.

Allergic states require hyposensitization. Excellent results follow hyposensitization with stock vaccine in patients sensitive to bacteria. Dicalcium phosphate orally is indicated.

In metabolic hypofunction thyroid gland gives excellent results.

In sinus involvement of all types shrinkage followed by suction irrigation gives relief from symptoms.

Carefully directed therapy better prepares our patients for surgery where surgical procedures are indicated.

2:50 p.m. Discussion: Edward L. Rigley, M.D., South Bend.

3:00 p.m. Ralph J. McQuiston, M.D., Indianapolis.

Subject: The Surgical Treatment of Sinusitis.

ABSTRACT: In considering the surgical treatment of sinusitis one should first understand the histology and the pathological changes that take place when an infection occurs in the sinuses.

The patient should be studied by both the family physician and the otolaryngologist to ascertain the relationship of the sinus infection to the patient's general disability. The clinical findings, observations, and x-ray study determine the degree and type of pathology in each case.

In considering the treatment, each case must be studied as an individual case by the above findings. In acute sinusitis local drainage, aeration, and constitutional treatment are usually sufficient. In subacute cases, medical and surgical treatment of the nose, including removal of nasal obstructions, drainage of the affected sinuses and such measures, are necessary to give better ventilation to the nasal and paranasal sinuses. This may check the pathological process of mucous membranes and aid the defense of the body in overcoming the infection. In the chronic phases of sinus disease in which the mucous membrane lining the sinuses has been permanently involved, retaining the infectious products within the sinuses, nothing less than complete exenteration of this septic tissue is recommended.

In children sinus infection is very common and should be considered as important as that involving the tonsils and adenoids. The surgical treatment of sinusitis in children is, to a large extent, limited to ventilation and drainage.

3:20 p.m. Discussion: Raymond R. Calvert, M.D., Lafayette.

3:30 p.m. Parker Heath, M.D., Detroit, Michigan.



Dr. Heath

Subject: Management of Glaucoma.

ABSTRACT: There is no hard and fast rule in the management clinically of glaucoma. A disease of many kinds whose etiological factors are difficult to unravel. The treatment is usually both medical and surgical.

The medical treatment is of two parts, (1) the general health, as elimination of foci, correction of disturbed metabolism, (2) local to the eye by drugs, as the miotics. Rarely, x-ray treatment is indicated.

The surgical treatment uses such procedures as: paracentesis, iris operations, filtering flaps, cyclodialysis, enucleation.

An outline of kinds of glaucoma and secondary factors found useful to the writer will be followed.

3:50 p.m. General discussion.

4:00 p.m. D. Hamilton Row, M.D., Indianapolis.

Subject: Survey of the Applicants for the Blind Pension.

ABSTRACT: Blind pension physical examination reports of 2,657 persons qualifying as blind have been analyzed as to the cause of blindness in the eyes themselves and also as to the underlying physical cause of the ocular failure. The examinations were made by physicians scattered over the state.

The incidence of cataract, glaucoma, optic atrophy, posterior, and other diseases are discussed. The data analyzed is the first available in the State of Indiana as to causes of blindness. It is hoped that from a continuation of such reports progress will be possible in preventing a substantial part of blindness of future generations.

4:10 p.m. Discussion: Eugene L. Bulson, M.D., Fort Wayne.

4:20 p.m. Election of section officers.

4:30 p.m. Join Medical Section to hear Walter E. Dandy speak on "Meniere's Disease."

SECTION ON ANESTHESIA

Chairman, George Rosenheimer, South Bend.

Vice-Chairman, Roy A. Geider, Indianapolis.

Secretary, Lillian Mueller, Indianapolis.

(MURAT EGYPTIAN ROOM FOYER No. 2)

2:00 p.m. Frank W. Ratcliff, M.D., Lafayette.

Subject: Nupercaine Combinations Used in Spinal Anesthesia—Eight-year Review.

ABSTRACT: The experiences of many anesthetists during the past eight years have proven the value of nupercaine, a quinolin derivative, as the active agent in prolonged spinal anesthesia. Nupercaine solutions, when used alone, produce an anesthetic block which comes on relatively very slowly. However, once the anesthesia becomes established, it is effective for more than two hours, and the anesthetic state is followed by several hours of reduced sensibility to post-operative pain. When nupercaine is combined with procaine the resultant spinal anesthesia appears rapidly and lasts comparatively a long time.

Nupercaine may be combined with procaine for surgery with the patient in Fowler's position or with Spinothane for surgery in those cases requiring Trendelenburg position. Since the level of the anesthetic solution in the spinal canal is readily determined by the height of surface anesthesia, the combined solution of Nupercaine-Procaine is deemed safer in average hands than is the solution of nupercaine alone.

2:20 p.m. Discussion: George M. Rosenheimer, M.D., South Bend.

2:30 p.m. Henry S. Ruth, M.D., Philadelphia, Pa.

Subject: Various Types of Hospital Anesthesia Organizations.

ABSTRACT: There is an ever-increasing demand today for more efficient anesthetic departments consisting of well-trained physicians. Many institutions desire to better their present departments, but do not know what type of organization will be best suited to their demands. While it is recognized that each hospital is more or less of a law unto itself, data is presented on the various types of organizations which have been found to be successful, together with the duties involved, and some of the respective advantages and disadvantages of each.

2:50 p.m. Discussion: Karl R. Ruddell, M.D., Indianapolis.

3:00 p.m. Charles N. Combs, M.D., Terre Haute.

Subject: Cyclopropane—A Resume of Personal Experience.

ABSTRACT: A typical program paper on this subject would necessitate endless quotations from Dr. Ralph Waters of Madison, who was the god-father of cyclopropane. This is a clinical study of 700 administrations and serves merely to further substantiate the broad theses of the above mentioned authority. Cyclopropane makes exacting demands on one's judgment and knowledge of physiology. It exercises disciplinary effects on the lazy and stupid anesthetist and safety is possible only by being on the qui vive continuously. It is not for the neophyte but is surely made to order for the specialist in anesthesiology. No disability yet encountered has proven a contraindication to its use provided an anesthetic was required. It is the streamlined method for the requisites of modern surgery.

3:20 p.m. Discussion: E. T. Zaring, M.D., Terre Haute; O. O. Alexander, M.D., Terre Haute.

3:30 p.m. Round table discussion.

4:00 p.m. Election of officers.

WEDNESDAY EVENING, OCTOBER 5, 1938

7:30 P.M. ANNUAL BANQUET, MURAT BANQUET ROOM, MURAT TEMPLE.

Presiding officer, Herman M. Baker, M.D., president, Indiana State Medical Association.

Posthumous presentation of certificate of merit to E. D. Clark, M.D., president 1937, Indiana State Medical Association, by William N. Wishard, M.D.

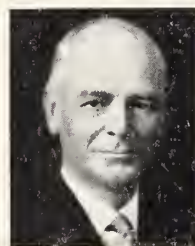


Dr. Sleyster

Speakers:

Rock Sleyster, M. D., Wauwatosa, Wisconsin, president-elect, American Medical Association.

Subject: (Not supplied.)



Dr. Vincent

Dr. George E. Vincent, Greenwich, Connecticut.

Subject: The Pain of Thinking.

THURSDAY, OCTOBER 6, 1938

7.00 a.m. House of Delegates breakfast meeting, Indianapolis Athletic Club. Annual election of officers and selection of convention city for 1939.

Meeting of Council immediately following adjournment of the House of Delegates.

8.00 a.m. Registration continues, lounge room, Murat Temple.

Scientific and commercial exhibits, lounge room, Murat Temple.

GENERAL MEETING, MURAT THEATER

9.00 a.m. **Frank E. Adair, M.D.**, Assistant Professor of Clinical Surgery, Cornell University Medical School, New York.



Dr. Adair

Subject: **Tumors of the Breast.**

(Abstract not received.)

9.30 a.m. Questions.

9.40 a.m. **Everett D. Plass, M.D.**, Professor of Obstetrics and Gynecology, State University of Iowa College of Medicine, Iowa City, Iowa.



Dr. Plass

Subject: **Obstetrics for the General Practitioner.**

ABSTRACT: Since more than nine-tenths of the deliveries in the country are conducted by general practitioners, the magnitude of the problem is clear. Under any circumstances the objective of obstetric practice remains the same—a healthy mother with a sound child. There are relatively few concepts essential to this objective, but these few are fundamental and emphasize the value of prevention rather than cure. Prenatal care serves to minimize the risk to mother and child. Asepsis,

which largely decreases the danger of infection, depends not upon a complicated delivery technic, but rather upon careful and limited performance of vaginal manipulations. The reduction of bleeding and trauma are also very important. On the other hand, analgesia, anesthesia, and drug therapy, while controversial, are of little significance.

10.10 a.m. Questions.

10.20 a.m. **Herman L. Kretschmer, M.D.**, Clinical Professor of Surgery, Rush Medical College, Chicago.



Dr. Kretschmer

Subject: **Cystitis in Women and Female Children.**

ABSTRACT: Cystitis in women and female children. Cystitis as a pathological entity. Cystitis as a clinical entity. The various causative factors will be considered. The importance of complete urological study in each case to determine the underlying factors. Diagnosis and differential diagnosis.

10.50 a.m. Questions.

11.00 a.m. **Walter E. Dandy, M.D.**, Adj. Professor of Neurological Surgery, Johns Hopkins University School of Medicine, Baltimore.



Dr. Dandy

Subject: **Tri-Facial Major Neuralgia.**

ABSTRACT: Trigeminal neuralgia is one of the most terrifying pains to which the human body has fallen heir. It comes in paroxysms lasting from a few seconds to a few minutes, and between these paroxysms the patient is perfectly well. The paroxysms are usually induced by sensory stimuli to the face. It is not an idiopathic disease, as is usually described in the text-books, but is due to a lesion attacking the sensory root of the fifth nerve. Infections of the sinuses or

teeth have no part in its causation.

It is not cured spontaneously but is permanently cured by an operation which entails less than one-half of one per cent risk.

The writer's method of surgical attack by dividing the sensory root under the cerebellum will be shown and the results compared to the old Hartley-Krause operation through the temporal fossa. The many advantages of the cerebellar procedure will be demonstrated.

11.30 a.m. Questions.

11.40 a.m. **Roy D. McClure, M.D.**, Henry Ford Hospital, Detroit, Michigan.



Dr. McClure

Subject: **Diagnosis and Management of Cholecystitis.**

ABSTRACT: Value of the newer diagnostic methods in chronic cholecystitis. Frequency of the so-called silent calculi found at autopsy indicate that clinical findings and clinical judgment alone are not equal to the task of diagnosing all cases of gall bladder disease.

Evidence of chronic gall bladder disease should be searched for in patient with symptoms referable to upper gastro-intestinal tract because absorption from the gall bladder may cause not only immediate symptoms of upper abdominal distress but also may be

responsible for hepatitis, arthritis, pancreatitis, myocarditis, etc. In acute cholecystitis new diagnostic methods usually contraindicated and final diagnosis rests largely on clinical impression with blood examinations. Plain films.

Time for operation in acute cholecystitis. Our experience from 320 operations of acute cholecystitis.

Women's Entertainment

TUESDAY, OCTOBER 4, 1938

9.00 a.m. Registration, lounge room, Murat Temple.

2.00 p.m. Tour of Scottish Rite Cathedral.

3.30 p.m. Tour of World War Memorial.
(Bus will leave Claypool Hotel at 1:45 p. m. for above trips.)

8.30 p.m. Reception honoring officers of the Auxiliary to the Indiana State Medical Association, Columbia Club.
Travel talk by Mrs. Demarchus Brown.

WEDNESDAY, OCTOBER 5, 1938

9.00 a.m. Annual Auxiliary breakfast and business meeting, Indianapolis Athletic Club. Mrs. Fred B. Wishard, president, presiding. (85c per person.)

Guest speaker: Norman M. Beatty, M.D., chairman, Committee on Public Policy and Legislation, Indiana State Medical Association.

2.30 p.m. Musicales, style show and tea, L. S. Ayres & Company.

7.30 p.m. Annual banquet, Murat banquet room, Murat Temple. (See page 472.)

THURSDAY, OCTOBER 6, 1938

10.00 a.m. Sightseeing tour of Indianapolis. Local Auxiliary members will meet any visitors desiring to take this tour at the registration desk, lounge room, Murat Temple.

INDIANA HEALTH OFFICERS' CONFERENCE

October 3-4, 1938.

HOTEL SEVERIN, INDIANAPOLIS

Monday morning, October 3.

9:00 a.m. Registration begins.

10:00 a.m. Meeting called to order.

1. "Epidemic Disease Control in the Schools."
J. W. Jackson, M.D., Epidemiologist of the State Board of Health.
2. "Long Range Public Health Planning."
C. C. Applewhite, M.D., Senior Surgeon, Regional Consultant U. S. Public Health Service, Chicago.
3. "Report of the Syphilis Committee."
F. R. Nicholas Carter, M.D., Chairman Committee on Syphilis, Indiana State Medical Association.
4. "Functions and Activities of the State Board of Health."
Verne K. Harvey, M.D., Director, State Board of Health.

Monday afternoon, October 3

2:00 p.m. Health Education.

1. "Cooperative Planning Between State Board of Health and State Department of Education on Health Education."
Thurman B. Rice, M.D., Chief of the Bureau of Health and Physical Education, State Board of Health.
and
Floyd I. McMurray, State Department of Public Instruction.
2. "Standards in Health Education."
Dr. L. A. Pittenger, President, Ball State Teachers' College.
3. "The Essentials for a Well-Rounded School Health Program."
Harold H. Mitchell, M.D., District Health Officer, New York City Health Department.
4. Discussion by Dr. W. W. Patty, Professor of Education and Director of the Physical Welfare Training Department Indiana University.

Tuesday morning, October 4.

- 10:00 a.m. 1. "Etiology of Influenza."
(Speaker to be announced.)
2. "Epidemiology of Poliomyelitis."
Dr. J. P. Leake, Washington, D.C.
3. "Pneumonia—A Public Health Problem."
(Speaker to be announced.)

COMMITTEES FOR THE INDIANAPOLIS CONVENTION

GENERAL CHAIRMAN OF ARRANGEMENTS: NORMAN M. BEATTY, M.D., INDIANAPOLIS.

HOTELS: Chairman, Ben Moore. Committee members: H. R. Alburger, H. C. Adkins, Sidney Aronson, John Aspy, David Berry, Charles Bird, Norman Booher, Raymond Butler, Fred Cheney, Ralph Coble, Glen Conway, M. Cornacchione, P. K. Cullen, John Day, James Denny, D. L. DeWees, Harold Dunlap, E. W. Dyar, John T. Emhardt, Ralph Everly, Joseph Flora, Paul Fouts, P. C. Furgason, William Gabe, and E. T. Gaddy.

CONVENTION HALL: Chairman, C. E. Cox. Committee members: D. S. Adams, E. O. Alvis, E. M. Amos, Max Bahr, O. H. Bakemeier, George Bowman, Archie Brown, J. S. Browning, Wayne Carson, N. C. Davidson, John Eberwein, Harry Foreman, L. H. Gilman, Myron Harding, J. E. Holman, and Kenneth Jeffries.

REGISTRATION: Chairman, Walter Kelly. Committee members: H. J. Anderson, W. S. Ankenbrock, M. J. Barry, Raymond Beeler, E. F. Boggs, J. N. Collins, Kenneth Craft, C. L. Eisaman, George Garceau, Fred Gifford, F. J. Hudson, A. S. Jaeger, J. E. Jobes, Howard Norris, T. V. Petranoff, Rogers Smith, Carl Schneider.

ENTERTAINMENT: Chairmen, John Warvel and Bert Ellis. Committee members: Ray Newcomb, Oliver Greer, Carl Habich, Joe Conley, B. J. Mathews, William Wishard, Jr., Roy Lee Smith, L. B. Hurt, L. D. Bibler, Frank Gastineau, Roy Myers, Ferd Weyerbacher, James Stygall, William Wise, Frank Ramsey, O. P. Hannebaum.

AUTOMOBILES: Chairman, Ross Ottinger. Committee members: Harry K. Langdon, V. A. Lapenta, George F. Lawler, J. K. Leasure, H. L. Leatherman, Glenn Lee, Henry Leonard, Leon Levi, Howard Aldrich, H. L. Allen, Don Anderson, E. G. Anthony, J. L. Arbogast, William E. Arbuckle, Don Bowers, Floyd Boyer, William Boyle, Donald Brodie, David E. Brown, Thomas A. Cortese, Thomas E. Cortney, H. B. Cox, Thomas J. Dugan, Roy Egbert, J. L. Farrell, F. T. Hallam, E. B. Haggard, F. L. Hade, Claude Hadden, G. W. Gustafson, John Graves, Russell Lamb, N. LaBonte, I. J. Kwitny, P. L. Kurtz, Herman Kuntz, Bennett Kraft.

GOLF: Chairmen, Karl Ruddell and Cleon Nafe. Committee members: Carl McCaskey, J. William Wright, Paul Hurt, Russell Hippensteel, John Kingsbury, William Dugan, Lacey Shuler.

TRAP SHOOT: Chairman, L. A. Ensminger.

ARCHERY: Chairman, W. P. Morton. Committee members: Bert E. Ellis, E. T. Gaddy, Frank W. Teague, John H. Warvel.

BANQUET: Chairman, Edgar Kiser. Committee members: Thomas J. Beasley, George S. Bond, James Carter, Ralph Chappell, William F. Clevenger, Lehman Dunning, Charles P. Emerson, Arthur Funkhouser, Robert L. Glass, Homer G. Hamer, A. M. Hetherington, W. F. Hughes, G. B. Jackson, George Kohlstaedt, B. J. Larkin, Goethe Link, A. L. Marshall, C. O. McCormick, P. E. McCown, W. P. Moenning, Thomas B. Noble, O. B. Norman, F. V. Overman, W. E. Pennington.

MEDICAL EXHIBITS IN DOWNTOWN STORES: Chairman, T. B. Rice. Committee members: C. S. Wright, A. S. Woodard, Donald Wood, Matthew Winters, I. W. Wilkens, J. M. Whitehead, Donald White, C. A. Weller, Richard C. Travis, William E. Tinney, H. C. Thornton, Kenneth Thornburg, Frederick W. Taylor, Walter Stoeffler, J. B. Stalker, Alan Sparks, Byron Snider, Lester Smith, O. W. Sicks, W. A. Shullenberger, Louis Segar, Russell Sage, C. L. Rudesill, Clark Rogers, Charles W. Roller, Wayne Ritter.

MILITARY SERVICE: Chairman, Colonel L. D. Carter. Committee members: Charles R. Bird, John J. Boaz, M.

Cornacchione, Blau F. Deer, F. Tulley Hallam, T. Victor Keene, Carleton B. McCulloch, Charles W. Myers, Olin B. Norman, Dudley A. Pfaff, Frank B. Ramsey, David H. Sluss, Chester A. Stayton, Homer H. Wheeler.

WOMEN PHYSICIANS: Chairman, Jane Ketcham. Committee members: Lillian Mueller, Martha Souter.

RECEPTION: Chairman, John Cunningham. Committee members: C. H. Ade, Frederic L. Baer, Don A. Bartley, R. R. Beach, Henry F. Beckman, Louis D. Belden, Henry I. Berger, M. E. Beverland, Louis C. Bixler, Ralph E. Blackford, Roger W. Blackford, Olga Banke Booher, Edward A. Brown, Frances T. Brown, L. W. Brown, Wendell E. Brown, Walter L. Bruetsch, Rose J. Buttz, Ernest E. Cahal, J. W. Canaday, Samuel S. Caplin, O. E. Carter, K. K. Chen, C. P. Clark, Elizabeth Conger, Chester C. Conway, Robert E. Conway, Samuel J. Copeland, Homer W. Cox, Helen L. Crawford, F. W. Gregor, Daniel J. Carlton, John A. Davis, Clark W. Day, M. F. Dean, C. Bowen DeMotte, William J. Dieter, Albert M. Donato, W. L. Dormon, Frank T. Dowd, J. Wayne Ebert, Frank B. Fisk, F. M. Fitch, N. C. Folkening, David W. Fosler, Ralph M. Funkhouser, Sumner A. Furniss, William Garner, John D. Garrett, John A. Garrettson, W. P. Garshwiler, W. D. Gatch, Julius H. P. Gauss, Charles L. George, Herman H. Gick, J. L. Glendening, H. W. Goss, A. B. Graham, Nathan P. Graham, Joseph J. Gramling, Wait Griswald, Charles B. Gutelius, Murray N. Hadley, Thomas A. Hanna, Allan K. Harcourt, Albert H. Harold, N. E. Harold, Verne K. Harvey, C. J. Haslinger, B. F. Hatfield, Nicholas W. Hatfield, Sidney J. Hatfield, Everett L. Hays, Harry H. Heinrichs, John D. Hendricks, John W. Hendricks, Walter F. Hickman, J. M. Himler, U. B. Hine, J. William Hofmann, A. A. Hollingsworth, A. E. Hubbard, James E. Hughes, Bernard Hyman, Henry W. Irwin, Paul G. Iske, Jesse L. Jackson, J. W. Jackson, Harry A. Jacobs, O. S. Jaquith, William L. Jennings, C. A. Jinks, Norman E. Jobs, A. Samuel Johnson, Thomas B. Johnson, William F. Johnson, Albert T. Jones, David E. Jones, George L. Jones, Leo Kammen, Stanfield H. Keeney, C. H. Keever, Venice D. Keiser, D. E. Kelly, John F. Kelly, Gerald F. Kempf, Harry R. Kerr, John F. Kerr, Jr., Young D. Kim, William E. King, Harry E. Kitterman, Benjamin V. Klain, Karl M. Koons, L. H. Kornafel, Fred B. Kurtz, J. R. Lewis, E. O. Lindemuth, Ed. L. Lingeman, Merrill E. Liston, J. Jerome Littell, John W. Little, John W. Little, Jr., W. D. Little, Ralph L. Lochry, William H. Long, Norman S. Loomis, Glenn C. Lord, F. H. Luck, Oscar D. Ludwig, E. D. Lukenbill, Donald E. MacGregor, Harry S. Mackey, H. L. MacGennis, Marlow W. Manion, Max Mansfield, A. L. Marshall, Jr., Cavins R. Marshall, John A. Martin, C. W. Marxer, J. M. Masters, Robert J. Masters, W. Burleigh Matthew, William A. McBride, Jos. T. C. McCallum, D. J. McCarthy, E. C. McDonald, Charles J. McIntyre, John D. McLeay, F. G. McMilan, Charles McNaul, Ralph J. McQuiston, D. S. Megenhardt, L. T. Meiks, A. F. Melloh, W. E. Mendenhall, Paul Merrell, Henry O. Mertz, Arthur J. Micheli, William F. Miller, Earl H. Mitchell, Raymond E. Mitchell, William F. Molt, Charles A. Morgan, Rollin H. Moser, M. H. Mothersill, Joseph E. Moutoux, Arvine E. Mozingo, E. B. Mumford, Louis T. Need, A. S. Neely, Oliver C. Neier, H. F. Nolting, William H. Norman, Thomas A. O'Dell, Albert A. Ogle, C. E. Orders, Harry S. Osborne, John E. Owen, E. E. Padgett, Manley A. Page, Harry Pandolfo, John F. Parker, Portia Parker, Martin T. Patton, M. B. Paynter, A. C. Pebworth, James T. Pebworth, Franklin B. Peck, Paul Pentecost, R. J. Peters, B. B. Pettijohn, Fred L. Pettijohn, Jack E. Pilcher, Harry S. Rabb, Albert W. Ratcliffe, Jewett V. Reed, Philip B. Reed, Charles A. Reid, F. P. Reid, Simon Reisler, Fred C. Reynolds, J. C. Rhea, T. D. Rhodes, Raymond M. Rice, J. W. Ricketts, John F. Rigg, E. B. Rinker, E. S. Roberts, Ray B. Robertson, B. D. Rosenak, D. H. Row, G. S. Row, M. L. Ruth, C. W. Rutherford, William A. Sandy, C. Richard Schaefer, Emil W. Scheier, A. J. Schneider, Ada E. Schweitzer, Albert Seaton, G. W. Seaton, Herbert L. Sedam, Kenosha Sessions, M. R. Shafer, C. W. Siekerman, J. Lawrence Sims, J. H. Smiley, David L. Smith, Francis C. Smith, James M. Smith, R. A. Solomon, J. W. Sovine, Alan L. Sparks, M. J. Spencer, Mary A. Spink, Urbana Spink, Carl B. Sputh,

K. H. Stephens, Nathan Stern, Joseph L. Storey, R. B. Storms, Tyler J. Stroup, Herbert F. Sudranski, John R. Surber, Dane Talbott, Clifford C. Taylor, John M. Taylor, Merrell H. Taylor, Frank W. Teague, B. J. Terrell, Hugh K. Thatcher, Jr., Joseph O. Thayer, A. A. Thomas, John R. Thrasher, George A. Tiley, Frank C. Tinsley, Walter B. Tinsley, O. N. Torian, Harry A. VanOsdol, C. F. Voyles, J. Thayer Waldo, Ernest de Wolfe Wales, F. C. Walker, Robert K. Walker, Frederick C. Warfel, A. P. Warman, E. S. Waymire, M. M. Weaver, John W. Webb, J. O. Wehrman, Clayton G. Weigand, H. J. Weil, J. L. West, John T. Wheeler, Joel Whitaker, Luther Williams, Oliver R. Wilson, Emil G. Winter, William N. Wishard, J. T. Witherspoon, J. B. Young, John M. Young.

FRATERNITY: Chairman, Ernest Rupel. Committee members: Gordon Batman, Byron Rust, Murray DeArmond, Herbert Call, Maurice Kahler, John Brayton, Roy Geider, R. D. Howell.

HOSPITAL EXHIBITS: Chairman, Will Shimer. Committee members: Irvine H. Page, Charles Myers, Frank Forry, H. M. Banks.

PUBLICITY: Chairman, Herman Morgan. Committee members: E. O. Asher, C. B. Bohner, D. L. Bower, Robert Dearmin, Elmer Funkhouser, E. V. Hahn, Russell Henry, F. E. Jackson, Mason Light, James McBride, T. B. Noble, Jr., Lyman Pearson, Chester Stayton, C. F. Thompson.

LANTERNS: Chairman, Kenneth Kohlstaedt. Committee members: Russel Arbuckle, James Balch, Paul Beard, J. K. Berman, John Dalton, John W. Ferree, John Greist, James H. Hawk, Emmett Lamb, Ralph Leser, Harold Ochsner, Brandt Steele, John Swan, Russel Spivey, Ray Tharpe, Harold Trusler, William V. Woods, C. S. Wright.

FINANCES: Chairman, John McDonald. Committee members: C. J. Clark, Howard Mettel, Robert Moore, Joseph Conley, Norman Beatty, J. O. Ritchey.

WOMEN'S ENTERTAINMENT: Chairman, Mrs. W. E. Tinney; co-chairman, Mrs. C. J. Clark.

MAKE YOUR HOTEL RESERVATIONS NOW

(List of hotels and
rates on page 514)

Hotels advertised in
this JOURNAL:

Claypool

Spink-Arms

Lincoln

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at Indianapolis, October 4, 5 and 6, 1938.

The House of Delegates will be constituted as follows: Marion County, twelve delegates; Lake County, four delegates; Allen County, three delegates; St. Joseph County, three delegates; Tippecanoe County, two delegates; Vanderburgh County, three delegates; Vigo County, two delegates; the other seventy-six county societies, each one delegate; thirteen councilors; the ex-presidents, namely: C. S. Bond, W. N. Wishard, J. B. Berteling, Joseph R. Eastman, W. H. Stemm, C. H. McCully, W. R. Davidson, E. M. Shanklin, Charles N. Combs, Frank W. Cregor, George R. Daniels, Charles E. Gillespie, Angus C. McDonald, A. B. Graham, F. S. Crockett, J. H. Weinstein, E. E. Padgett, and R. L. Sensenich. In addition to these, the president, secretary, and treasurer, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis, or brought to the session. No delegates will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 4:00 p. m., Tuesday, October 4, in the Murat Theater, and again at 7:00 a. m., Thursday morning, October 6, at the Indianapolis Athletic Club (breakfast meeting).

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Appointment of reference committees.
5. Report of executive secretary.
6. Report of the treasurer.
7. Report of the chairman of the council.
8. Reports of standing and special committees:
 - (1) Credentials.
 - (2) Executive.
 - (3) Arrangements.
 - (4) Scientific Work.
 - (5) Public Policy and Legislation.
 - (6) Bureau of Publicity.
 - (7) Civic and Industrial Relations.
 - (8) Medical Education and Hospitals.
 - (9) Public Relations.
 - (10) JOURNAL Publication.
 - (11) Necrology and Historian.
 - (12) Secretaries' Conference.
 - (13) Graduate Education.
 - (14) Veterans' Affairs.
 - (15) Study of Health Insurance.
 - (16) Study of High School Athletics.
 - (17) State Fair.
 - (18) Mental Health.
 - (19) Prevention of Traffic Accidents.

- (20) State Board of Health Liaison Committee to Deal with Social Security Act.
- (21) Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana.
- (22) Liaison Committee with Indiana Crippled Children's Bureau.
- (23) Auditing.
- (24) Control of Cancer.
- (25) Syphilis Control.
- (26) Occupational Diseases.
- (27) Study of Cultists and Irregular Practitioners.
- (28) Medical Education Investigation.
- (29) Inter-Allied Professional Conference.
9. Reading of communications.
10. Reading of memorials and resolutions.
11. Unfinished business.
12. New business.
13. Adjournment.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1938, and their successors must be elected at the session: Delegates to the American Medical Association to succeed H. G. Hamer, Indianapolis, and E. M. Shanklin, Hammond, and alternates, W. F. Kelly, Indianapolis, and George Dillinger, French Lick.

Delegates from the first, fourth, seventh, tenth, and thirteenth districts are reminded that the terms of their councilors will expire December 31, 1938, and new councilors should be elected to succeed the following:

First District: I. C. Barclay, Evansville.

Fourth District: M. C. McKain, Columbus.

Seventh District: C. J. Clark, Indianapolis.

Tenth District: N. K. Forster, Hammond.

Thirteenth District: W. B. Christophel, Mishawaka.

Some of these elections already may have been held but they should be reported to the House of Delegates at this session for confirmation.

THOMAS A. HENDRICKS,
Executive Secretary.

REPORT OF COMMITTEE ON CREDENTIALS

House of Delegates,

Indiana State Medical Association

Gentlemen:

In accordance with the Constitution and By-Laws of the Indiana State Medical Association, each county medical society must certify its delegates and alternates previous to the annual session of the State Association. A postal card notification signed by the secretary of the local county medical society and sent to the headquarters office is sufficient certification. If you have not yet taken this action in your society, we urge that

this be done immediately and that the headquarters office or this committee be notified.

Respectfully submitted,

W. F. CARVER, M.D., *Chairman,*

J. W. BOWERS, M.D.,

W. E. AMY, M.D.

REPORT OF THE EXECUTIVE SECRETARY

House of Delegates,

Indiana State Medical Association.

Gentlemen:

When the physicians of Indiana assemble for the eighty-ninth annual session in Indianapolis, October 4th, they will be coming to what probably will be the most important meeting in the long history of the medical profession of this state—for the profession today is squarely and frankly confronted with a supremely great issue—socialized medicine—and doing something about it. Since the World War, shadows of socialized medicine have hovered over almost every annual session, sometimes barely visible, but always present and always threatening. In the past, however, somehow the skies have cleared, but this time the shadows have reached storm-cloud proportions, and it is definitely up to the House of Delegates, representing the 3,000 members of the organization, to determine just what is to be done about it. The Hoosier public is looking to the medical profession of Indiana for sound judgment and leadership, and the medical profession is looking to the House of Delegates for action.

The seriousness of the situation arouses deep concern, but whether it is over-optimism, over-confidence, or just sheer "cockiness," we believe that the Indiana profession is able to solve this problem if any group in the world can work out such a solution—a solution which will be made in the interest of the public as well as the profession. This feeling of confidence in the ability of the Indiana profession to meet this crisis does not rest on thin air, but is supported by the following facts:

FACT I—That the Indiana State Medical Association is in the strongest position internally in its history with all but a few hundred of the active, practicing, ethical doctors in the state in its ranks.

FACT II—That active, functioning state committees are studying details and attacking the problems, both scientific and economic, that are arising on all fronts.

FACT III—That the officers and the executive committee have kept informed constantly with the various moves, changes and developments in the social and economic picture, and have been represented during the year, and have received first-hand information, at such important meetings as the annual American Medical Association session at San Francisco, the mid-year meeting of the Northwest Medical Conference, the now famous

National Health Conference in Washington, the sickness insurance conference of the Republican platform study committee, and have attempted to meet every emergency soundly, sanely, and intelligently.

FACT IV—That the medical profession of the state is fully informed of these events through THE JOURNAL of the Indiana State Medical Association, which has come to be recognized as one of the leading medical publications in the country.

FACT V—That the general standard of scientific achievement and medical services in this state rank well with those of any state in the Union.

FACT VI—That the Indiana State Medical Association is composed of active county and district medical societies which have given these subjects of medical economics and socialized medicine sincere detailed study for years and are well informed on all phases of the problem.

FACT VII—That the profession of the state, through the Bureau of Publicity, has assumed a progressive, broad-visioned leadership, creating, developing, and sponsoring the "Indiana Plan of Preventive Medicine," which was approved by the House of Delegates of the A. M. A., and may form the background for a nation-wide program under which services may be rendered to the public such as never have been available under any form of socialized medicine.

FACT VIII—That the Indiana profession retains the confidence of the public and the press and generally is known as a progressive, well-trained, active group, motivated by the highest principles of public service.

FACT IX—That the officers of the state association have worked on a suggested program for the discussion of the problem through joint action of the Council and the Executive Committee, in order that the House of Delegates will have the latest complete information upon which to guide its action and recommendations.

FACT X—That the public is looking to the medical profession for leadership, and the profession will not fail in its responsibilities, for its membership is made up of men who willingly and unselfishly are giving their time and abilities to these complex problems.

Whatever is done or may not be done by the House of Delegates will affect every physician in the state and his patients, and hence it is the duty of every member of the State Association to be intelligently informed in regard to the present situation by reading carefully the reports of the various committees as printed in THE JOURNAL. In that way each may have some background upon which to form his opinion, which will be reflected by his delegate when the House of Delegates, the legislative body of the organization, meets in October.

Respectfully submitted,

THOMAS A. HENDRICKS,

Executive Secretary.

REPORT OF THE TREASURER

House of Delegates,

Indiana State Medical Association.

Gentlemen:

We are pleased to report to you that the Indiana State Medical Association is still enjoying a sound financial condition. The following report of the George S. Olive and Company, certified accountants, gives an account of our holdings and funds in various banks. Since the accountants' report is made up for the year ending December 31, 1937, your attention is called to some of the items not included in their report. The Medical Defense drawing account has grown considerably from August 1, 1937, to August 1, 1938. This is largely due to the fact that within the time noted only \$15.00 was spent for lawyer and court costs. During the preceding year \$1,554.42 was spent for similar services. Attention is called to this in the annual report of the Executive Committee. In the General Fund on August 1, 1937, a balance of \$8,186.26 was shown. The balance in this fund August 1, 1938, is \$11,012.54. This latter figure will be considerably decreased by the end of the year from ordinary expenses and the expense of the annual meeting.

Our holdings in both the General and the Medical Defense Funds gave us an income of \$1,175.25 last year. The interest rates range from 2½% to 4% , the average being 3.59%. Within the past six years all of our municipal holdings as they have matured have been reinvested in United States Treasury bonds. This has reduced the average yield.

Respectfully submitted,

A. F. WEYERBACHER, M.D.,

Treasurer.

TREASURER'S REPORT

January 10, 1938

The Council,
Indiana State Medical Association,
Indianapolis, Ind.

Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1937. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as reflected by the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds at December 31, 1937; (3) statement of receipts and disbursements of all funds for the year ended December 31, 1937. A list of the statements is presented on the page following this text.

GENERAL COMMENT

In exhibit A is presented an analysis of the increase in assets of the Association for the year ended December 31, 1937, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in exhibit B. We examined securities of the Association and confirmed bank balances with the depositories.

Details of the receipts and disbursements of cash in the general fund. The Journal of the Indiana State Medical Association, and the medical defense fund are pre-

sented in exhibits C, D, and E. With respect to the comparative statement of cash receipts and disbursements of the general fund, it will be noted that there is reflected for the current year a decrease of interest income. This decrease results from a resolution of the Executive Committee dated January 10, 1937, segregating income from securities of the general and medical defense funds which income had, in prior years, all been credited to the general fund. The result of this change in accounting method is that in exhibit C the interest income for the year 1936 was received from all securities of the Association, whereas for the year 1937 the interest income reflected in exhibit C is from securities of the general fund only.

Yours very truly,

GEORGE S. OLIVE & CO.,
Certified Public Accountants

Exhibit A

INDIANA STATE MEDICAL ASSOCIATION Analysis of Increase in Assets, All Funds. Year Ended December 31, 1937

TOTAL ASSETS, DEC. 31, 1937—EXHIBIT B.....	\$45,213.84
TOTAL ASSETS, DEC. 31, 1936.....	42,692.91

NET INCREASE	\$ 2,520.93
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Arising from the following sources:

Excess of operating cash receipts over operating disbursements — general fund, year ended Dec. 31, 1937:	
Receipts—Exhibit C..	\$26,276.50
Deduct: Proceeds from securities..	2,000.00

Net operating receipts	\$24,276.50
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Disbursements — Exhibit C	27,298.60
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Deduct: Disbursed for securities...	5,000.00
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Net operating disbursements ..	22,298.60
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Excess of operating receipts	1,977.90
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Excess of cash receipts over disbursements—medical defense fund, year ended Dec. 31, 1937	696.43
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	2,674.33
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Less:

Excess of cash disbursements over receipts—The Journal of the Indiana State Medical Association	18.40
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Reduction of investment — Rokeby Apartment Hotel bond	15.00
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Reduction of investment — Beachton Court Apartment bonds	120.00
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	153.40
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Total net increase.	\$ 2,520.93
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Exhibit B

Statement of Assets, All Funds, at December 31, 1937

General Fund:

Cash on deposit—Exhibit C.....	\$ 4,066.69
Petty cash fund.....	200.00

Investments:		
Fort Wayne, Indiana, School Improvement bonds	3,000.00	
Marion County, Indiana, Flood Prevention bonds	3,000.00	
Indianapolis City Hospital bonds....	5,000.00	
United States Treasury bonds.....	10,000.00	
Beachton Court Apartments, Chicago—bonds evidenced by certificates of deposit	3,880.00	
Rokeby Apartment Hotel, Chicago—bond evidenced by certificate of deposit	965.00	
Total general fund assets.....		\$30,111.69
Journal of The Indiana State Medical Association:		
Cash on deposit—Exhibit D.....		2,572.76
Medical Defense Fund:		
Cash on deposit—Exhibit E.....	2,529.39	
Investments:		
Fort Wayne, Indiana, School Improvement bonds	2,000.00	
Marion County, Indiana, Flood Prevention bonds	2,000.00	
Indianapolis City Hospital bond....	1,000.00	
United States Treasury bonds.....	5,000.00	
Total medical defense fund assets..	12,529.39	
Total assets—all funds—Exhibit A.....		\$45,213.84

Exhibit C**Comparative Statement of Cash Receipts and Disbursements, Years Ended December 31, 1937, and December 31, 1936**

GENERAL FUND			
—Year Ended—			
	Dec. 31, 1937	Dec. 31, 1936	Increase —Decrease
Cash balance at beginning of year	\$ 5,088.79	\$ 2,528.54	\$ 2,560.25
Receipts:			
Membership dues	20,720.00	19,733.00	987.00
Income from exhibits....	2,600.00	3,467.50	—867.50
Rokeby Liquidation Trust Distribution	15.00	20.00	—5.00
Beachton Court Liquidation Trust Distribution	120.00	.....	120.00
Interest income:			
United States Government bonds	286.25	311.25	—25.00
Indianapolis, Indiana, City Hospital bonds.	223.75	247.50	—23.75
Marion County, Indiana, Flood Prevention bonds	127.50	212.50	—85.00
Fort Wayne, Indiana, School Improvement bonds	135.00	225.00	—90.00
Lake County, Indiana, State Highway Aid bonds	49.00	100.00	—51.00
Proceeds from maturity of Lake County Indiana, State Highway Aid bonds	2,000.00	.....	2,000.00
Total receipts	26,276.50	24,316.75	1,959.75
Beginning balance plus cash receipts.....	31,365.29	26,845.29	4,520.00
Disbursements:			
Transfers of applicable portion of dues to:			
The Journal of the Indiana State Medical Association—Exhibit D	5,970.00	5,678.00	292.00

Medical defense fund—			
Exhibit E	2,212.50	2,108.25	104.25
Headquarters office expense	9,285.76	8,670.27	615.49
Publicity committee	433.09	337.85	95.24
Public policy	943.62	541.23	402.39
Council	166.57	122.91	43.66
Officers	268.50	603.29	—334.79
Annual session	2,169.84	2,678.39	—508.55
Miscellaneous committees	433.16	634.54	—201.38
Postgraduate study	217.09	381.77	—164.68
Federal O. A. B. tax....	51.95	.....	51.95
Premium and accrued interest on purchase of United States Treasury bonds	146.52	.....	146.52
Disbursement for United States Treasury bonds..	5,000.00	.....	5,000.00
Total disbursements...	27,298.60	21,756.50	5,542.10

Cash balance at end

of year..... \$4,066.69 \$ 5,088.79 **—\$1,022.10**

Exhibit D**(Exhibit B)****Statement of Cash Receipts and Disbursements, Year Ended December 31, 1937****THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION**

Balance January 1, 1937..... \$ 2,591.16

Receipts:

Subscriptions—members—Exhibit C...\$	5,970.00
Subscriptions—non-members	100.75
Advertising	10,582.91
Collections on accounts receivable....	368.66
Single copy sales	14.75
Electrotypes	81.39
Miscellaneous	11.00
Total receipts	17,129.46
	19,720.62

Disbursements:

Editorial and management salaries....	6,617.50
Printing	7,166.64
Postage	610.97
Electrotypes	543.40
Office rent and light	737.67
Office supplies	542.00
Press clippings	103.30
Federal O. A. B. tax.....	50.33
Extras—help and printing	470.70
Advertising commissions	89.10
Convention reporter	216.25
Total disbursements	17,147.86

Balance December 31, 1937—Exhibit B. **\$ 2,572.76**

Exhibit E**Statement of Cash Receipts and Disbursements, Year Ended December 31, 1937****MEDICAL DEFENSE FUND**

Balance January 1, 1937..... \$ 1,832.96

Receipts:

Transfer of applicable portion of dues from the general fund—Exhibit C...\$	2,212.50
Interest income:	
United States Treasury bonds.....	155.00
Indianapolis, Indiana, City Hospital bond	23.75
Marion County Flood Prevention bonds	85.00
Fort Wayne, Indiana, School Improvement bonds	90.00

Total receipts	2,566.25
	<hr/>
	4,399.21
Disbursements:	
Attorney's retainer fee.....	600.00
Malpractice fees	1,254.42
Treasurer's bond	15.00
Interest collection charges .....	.40
	<hr/>
Total disbursements	1,869.82
	<hr/>
Balance December 31, 1937—Exhibit B..	\$ 2,529.39
	<hr/>

REPORT OF THE CHAIRMAN OF THE COUNCIL

*House of Delegates,
Indiana State Medical Association.*

Gentlemen:

Reports of the regular meetings which the Council of the Indiana State Medical Association held during the year were published in the November 1937 and the February 1938 issues of THE JOURNAL. Hence only a brief summary of the actions taken by this body during the past twelve months is herewith submitted to the House of Delegates.

FIRST MEETING, FRENCH LICK, OCTOBER 4, 1937

The Council convened at the French Lick Springs Hotel at 12:30 p. m., with Dr. M. A. Austin, chairman, presiding. Roll call showed all thirteen councilors, the president, all members of the Executive Committee, the chairman of the Legislative Committee, and the executive secretary present.

Discussion of Revision of Medical Law

The Council discussed the resolution which had been presented at a previous meeting by Dr. Forster regarding irregular practices of cultists and urging that laws be passed which will prevent cultists from using so-called physical therapy treatment machines. The question was referred to the Legislative Committee.

Journal Elections

Dr. E. M. Shanklin was unanimously re-elected editor of THE JOURNAL for 1938 and Dr. Pierce MacKenzie was elected to succeed himself as a member of the editorial board, starting January 1, 1938.

Journal Publication Bids Opened

Bids for publication of THE JOURNAL for 1938 were opened as the printers who were then doing the job stated that it would be necessary to increase their costs approximately 6% over 1937. Under such conditions the Council felt while THE JOURNAL had been well done and the relationships with the printer were fine that it seemed best to open the bids again. The Council referred the matter to the Executive Committee with power to act. (See report of Executive Committee.)

Question of Pro-rating Dues of New Members

Question was brought up as to whether or not any method of pro-rating state dues of newcomers

to the state or of members who had been out of the society and were coming back in the middle of the year or later could be devised. After much discussion the Council decided to leave the matter as it is at present, that is, that the matter be left to the discretion of the local society as to pro-rating local county society dues and that no change be made in the present status concerning State Association dues.

Ninetieth Anniversary Meeting of State Association

As the 1939 meeting of the Association will be the ninetieth annual session the Council felt that this should be made a special anniversary session but no details were discussed.

Change in Wassermann Cards

The Council noted the fact that a change had been made in the Wassermann cards of the State Board of Health and that it is no longer necessary to certify that a patient is indigent.

Resolution against Federal Licensing of Physicians

The Council authorized the Legislative Committee to formulate a resolution against the suggestion made by Senator J. Hamilton Lewis to license physicians federally.

SECOND MEETING, FRENCH LICK, OCTOBER 6, 1938

The second meeting of the Council convened directly following the meeting of the House of Delegates with Dr. M. A. Austin, chairman, presiding. Roll call showed nine councilors, the president, president-elect, editor of THE JOURNAL and the executive secretary present.

Limitation of Terms of Editorial Board Members

Recommendation received from the Editorial Board that the terms of the members be limited to three years and that the membership on the Board be increased to six instead of five members. This question was to be brought up for final action at the midwinter meeting of the Council.

Formation of Inter-Allied Professional Conference

The suggestion for the formation of an inter-allied professional conference of Dean C. B. Jordan of Purdue University was presented to the House of Delegates by Dr. F. S. Crockett. The House of Delegates instructed the Council to appoint a committee of three to study and report in six months "the proposal to join with other allied professional groups of the state for a more satisfactory solution of their mutual problems." Study committee appointed and authorized to meet with Dean Jordan.

MIDWINTER MEETING, INDIANAPOLIS, JANUARY 16, 1938

With all thirteen of the councilors present, the president for 1937, the president for 1938, the president-elect, the treasurer, the editor of THE JOURNAL, and the executive secretary of the Indiana State Medical Association present, the Council convened in the morning at the Columbia Club with Dr. M. A. Austin, chairman, presiding.

Postgraduate Course

The postgraduate course dates were set tentatively for the week of May 23 to 27.

Reports of Officers

Reports were made by councilors of each of the districts and by the officers of the Association.

Dr. E. D. Clark, 1937 president, said that the biggest thing that the State Medical Association had done during 1937 was the syphilis campaign.

Dr. Herman Baker, president for 1938, stated that "without question the organized medical profession must change its views and its program to accommodate the changing social conditions which the signs of the times so definitely forecast." He outlined his Indiana plan of preventive medicine and the topic of the month idea which was followed throughout the year in THE JOURNAL.

Dr. A. F. Weyerbacher, treasurer, reported that the Association had operated with a net increase at the end of the year of \$2,520.93 above the balance at the end of the previous year.

Dr. E. M. Shanklin, editor of THE JOURNAL, spoke of the additional features of THE JOURNAL.

Economic Articles in Journal

Suggestion made by Dr. C. J. Clark that articles prepared by authorities in various branches of business and professional life upon banking, real estate, accounting, and insurance, be carried in THE JOURNAL. (Such articles have been one of the most acceptable features of THE JOURNAL during the past year.)

Visits from Detail Men

Suggestion made that when detail men call, physicians should ask whether or not their products are eligible for advertising in THE JOURNAL.

Inter-Allied Professional Conference

Following a report by Dr. F. S. Crockett of Lafayette in regard to the inter-allied professional conference, the Council appointed a committee empowered to act as representative for the State Medical Association at the conference.

Limitation of Terms of Editorial Board Members

The Council passed a resolution increasing the editorial board to six members and reducing the terms of the members to three years. Dr. J. B. Maple of Sullivan was elected as the additional member of the board.

New Contract for Printing The Journal

The Executive Committee announced that a new contract for printing THE JOURNAL had been given to the C. E. Pauley Company of Indianapolis.

Reports of Committee Chairmen and Guests

The following were invited to attend the luncheon meeting and made brief reports to the Council: Dr. C. A. Nafe, chairman, Executive Committee; Dr. A. M. Mitchell, chairman, Committee on Secretaries' Conference; Dr. V. K. Harvey, secretary, State Board of Health; Dr. W. D. Gatch, dean, Indiana University School of Medicine; Dr. C. H. McCaskey, member of Executive Committee; Dr. Don F. Cameron and Dr. F. S. Crockett, delegates to the American Medical Association; Dr. R. L. Sensenich, member of the Board of Trustees of the American Medical Association; Dr. F. M.

Gastineau, member of Bureau of Publicity; Dr. N. M. Beatty, chairman of Legislative Committee; Dr. J. V. Cassady, chairman, Committee on Scientific Work; Dr. L. A. Ensminger, chairman, Committee on Graduate Education; Dr. E. E. Padgett, chairman, Committee on Control of Cancer; Dr. F. W. Cregor, chairman, Committee on Occupational Diseases; Dr. H. J. Norton, chairman, Committee to Study Cultists and Irregular Practitioners; Dr. O. W. Greer, director of Services for Crippled Children, and Albert Stump, attorney for the Association.

Medical Care for All the People Survey

Dr. R. L. Sensenich spoke of the survey in regard to medical care for all the people proposed by the American Medical Association as a result of a joint conference between the American Medical Association, the American Public Health Association, and the United States Public Health Service. The resolution calls upon "all local county medical societies to assume leadership in all medical activities in their communities." Dr. Sensenich stated that the resolution meant that "the state societies should make necessary studies, establish plans and supervise this work in order that organized medicine may meet local needs," and that "ways and means may be worked out so that the individual who cannot afford otherwise may receive medical services at less than average fees."

Plans for 1938 Annual Session

Preliminary report along with proposals and suggestions for the 1938 annual session to be held at the Murat Temple, Indianapolis, on October 4, 5 and 6, was presented to the Council.

The Council voted to continue the scientific exhibit, to employ professional medical stenographers, and to arrange educational exhibits in downtown store windows at the time of the meeting.

Journal Business

The Council renewed the contract with Dr. E. M. Shanklin, editor of THE JOURNAL.

Indiana Plan

Dr. Gastineau explained the Indiana plan of preventive medicine and the topic of the month program for THE JOURNAL.

Health Security Plan

Dr. Forster suggested a plan whereby the medical profession undertake to organize health insurance companies to underwrite sickness insurance. It was moved that the Forster plan be mimeographed and copies sent to the councilors and that further action be postponed until a later meeting of the Council.

Elections for 1938

Dr. C. A. Nafe and Dr. C. H. McCaskey were re-elected members of the Executive Committee for 1938 and Dr. M. A. Austin was re-elected chairman of the Council.

Respectfully submitted,

M. A. AUSTIN, M.D., *Chairman.*

FIRST COUNCILOR DISTRICT

The First District held its annual meeting at the Evansville Country Club, June 9, 1938. The program consisted of a symposium on Maternal-Infant Mortality. The following papers were given: "How to Reduce the Maternal Mortality," by Dr. Pierce MacKenzie, Evansville; "How to Reduce the Infant Mortality in the Neonatal Period," by Dr. Russell Springstun, Evansville; "Infection During the First Year of Life," by Dr. Lyman Meiks, Indianapolis.

Officers for the ensuing year were elected as follows:

President, Dr. Minor Miller, Evansville.
 Vice-president, Dr. Lee Springstun, Chrisney.
 Secretary, Dr. Henry Faul, Evansville.
 Councilor, Dr. I. C. Barclay, Evansville.
 I. C. BARCLAY, M.D., *Councilor*.

SECOND COUNCILOR DISTRICT

The county societies in the district have added the names of the majority of all newly located physicians to their roster.

The annual district meeting was held at McCormick's Creek State Park in Owen County. Attendance was very good. The program was well planned, well presented, and much appreciated by the members. After the dinner at the Park Hotel, the state officials were heard. The presence of these officials and their message did a great deal toward placing the problems of the medical profession before the membership.

Dr. W. C. Reed of Bloomington was elected president. The 1939 district meeting will be held in Bloomington.

H. C. WADSWORTH, M.D., *Councilor*.

THIRD COUNCILOR DISTRICT

The county societies of the Third District seem to be functioning without any friction.

There seems to be an unusual amount of interest throughout the district due to the agitation of the national socialistic trends in medical service. The members of this district are willing to do the right thing in caring for the poor and I believe they have answered the challenge by truthfully saying "they have taken care of the poor."

The district has had two meetings during the last year. The fall meeting was held at New Albany and the spring meeting at French Lick. The meetings were well attended. The programs consisted of well balanced scientific subjects.

The Third District is willing to back the State Association in any stand it takes against the encroachment of socialistic medicine.

WILLIAM H. GARNER, M.D., *Councilor*.

FOURTH COUNCILOR DISTRICT

The Fourth District of the Indiana State Medical Association met at the Madison State Hospital on Thursday, May 19, 1938. The scientific meeting was held at the Madison State Hospital in the

afternoon where papers were given by Dr. William A. Shuck, Madison; Dr. Francis Prenatt, Madison; Dr. James O. Ritchey, Indianapolis; Dr. M. F. Daubenheyer, Holton; Dr. Durbin Day, Seymour; and Dr. O. W. Greer, Indianapolis. The evening meeting was entirely entertainment, and was held at the Madison Country Club.

Election of officers for the following year resulted as follows:

President, Dr. A. M. Kirkpatrick, Columbus.
 Vice-president, Dr. Harold Graessle, Seymour.
 Secretary-treasurer, Dr. Byron K. Zaring, Columbus.

Place of meeting for 1939: Columbus, Indiana.

M. C. MCKAIN, M.D., *Councilor*.

FIFTH COUNCILOR DISTRICT

The spring meeting of the Fifth District was held at the Elks' Club on May 11, 1938, in conjunction with the Vigo County and the Aesculapian Society of Wabash Valley. The guest speaker was Dr. Arnold Griswold. The component County Societies in the District are each holding regular monthly meetings and are all in excellent condition with a paid membership of 100% of all eligible physicians. The various societies are attempting to carry out the "Medical Survey of the care of all the people" as outlined by the American Medical Association. In Vigo County a special assessment of five dollars has been levied for this purpose and a paid statistician has been hired to assist with the more detailed portion of the survey.

O. O. ALEXANDER, M.D., *Councilor*.

SIXTH COUNCILOR DISTRICT

Every county society in the Sixth District is having regular meetings and they are all doing good work.

The annual meeting of the Sixth District Medical Society was held at Richmond, on Thursday, May 5th. This was one of the best meetings ever held by the society both in interest in the program and in attendance.

The following officers were elected to serve for the ensuing three years:

President, Dr. W. U. Kennedy, Newcastle.
 Secretary and treasurer, Dr. Jesse E. Ferrell, Fortville.

On Wednesday, July thirteenth, I had a meeting of the president and the secretary of each county society in the district and the president and secretary of the district society at Lewisville for a noon dinner. All were present except two. The meeting was for the purpose of meeting with Dr. O. W. Greer of Indianapolis, Director of Services for Crippled Children. Dr. Greer explained the purpose of his department fully and many questions were asked. The meeting was very informative and the officers of the various county medical societies will take the matter up with their societies for any action that they may deem proper.

SAMUEL KENNEDY, *Councilor*.

SEVENTH COUNCILOR DISTRICT

The Seventh District has had a very successful year. Meetings were held in all of the component societies in the district according to stated schedule. Guest speakers appeared on many of the county society programs.

The next district meeting will be held on November 2 in Indianapolis. Although arrangements have not been definitely completed, we are expecting to have a program of interest for all who attend. Entertainment is being arranged for the ladies and the meeting is scheduled to start promptly on time. A detailed program will appear in the October issue of THE JOURNAL. We extend a cordial invitation to all members of the State Association to attend.

C. J. CLARK, M.D.,
Councilor.

EIGHTH COUNCILOR DISTRICT

Due to the efforts of the local committee at Muncie, the district had the best meeting in its history on May tenth with over 150 doctors in attendance.

The disagreements arising over the District Crippled Children's Clinic on June 29th was finally removed by having the clinic sponsored by the Delaware-Blackford County Medical Societies and those members interested in orthopedics gave their time in reviewing the cases that came for examination. With the multiplicity of questionnaires we will soon have to be filling out for some governmental agency, I am reminded that among the news items I found the government had appropriated \$76,419 to employ 426 persons to count the trees in the City of Cleveland. A survey of broken limbs will probably be announced next year. Full and interesting programs have been given by all the county societies during the past year and attendance has been very satisfactory.

M. A. AUSTIN, M.D., *Councilor.*

NINTH COUNCILOR DISTRICT

The annual District Meeting was held in Noblesville on May 17th, the Hamilton County Society acting as host to the sister district societies. The entertainment was delightful, and the scientific program was very instructive.

Much credit is due to the district officers, Drs. Havens, Shanks, and Ambrose, for the efficient and expeditious handling not only of the district meeting but also of the district business for the past year.

The 1939 meeting will be held in Lebanon with the Boone County Society putting on the program.

The district officers for 1939 are:

President, W. H. Williams, M.D., Lebanon.

Vice-president, J. D. Coons, M.D., Lebanon.

Secretary-treasurer, C. G. Kern, M.D., Lebanon.

FLOYD T. ROMBERGER, M.D., *Councilor.*

TENTH COUNCILOR DISTRICT

The Tenth District, comprised of Lake, Jasper, Newton, and Porter counties, continues to report well attended meetings, interesting programs, and a minimum of disturbing factors. Notable by their absence, however, are the meetings featuring local or home talent. Perhaps the old excuse that "you are never a hero in your home town" has something to do with this. But whether or not this is the case, it is regrettable. Nothing is more conducive to medical interest than the preparation and presentation of medical topics, and it is hoped that more component programs will feature local members.

Questions involving medical economics can hardly be stated to have received much added interest in this district through the efforts of the American Medical Association to determine a basis for "medical care for all the people." However, what we consider a step in the right direction, so far as local problems are concerned, has recently been advanced by Lake County in laying the ground work for securing the services of an experienced lay executive secretary. Not only should this materially reduce the demands made upon the time and efforts of the medical secretary, but it should also offer a satisfactory method for cooperation between individual members, their patients and organizations with contrasting or conflicting medical viewpoints.

The number of cases of medico-legal difficulties involving members have been at a minimum, and appears in sharp contrast to earlier depression years.

We record with regret the passing of some of our members, and while it is inevitable that this must be so, nevertheless their leaving always brings a sense of loss which cannot be expressed.

The annual meeting of the Tenth District was held at "The Spa," east of Gary, on April 8th, in spite of one of the worst snow storms of the year. A dinner meeting was held, and an interesting program presented. The severe weather, however, prevented the attendance of the majority of the members.

In general it may be recorded that conditions throughout the Tenth District are progressing satisfactorily.

N. K. FORSTER, M.D., *Councilor.*

ELEVENTH COUNCILOR DISTRICT

The last meeting of the Eleventh District Medical Association was held in Logansport under the auspices of the Cass County Medical Society. There were eighty-eight members registered.

The scientific program was outstanding and the common expression was that "this has been the best meeting."

The factors which contribute most to the success of our District Association are live, active county societies in each of the seven counties, a program committee that meets twice each year

with the officers of the association to plan far enough ahead to get the "top notch" speakers together with a self sacrificing corps of officers who really think the Eleventh is the best and are determined to keep it the best District Association in the State. We have an active membership of 201 and have in the treasury at the present time available funds of \$460.

Our next meeting will be held in Delphi, Wednesday, October 19th.

Speakers already consented to address the meeting are Dr. E. Vernon Hahn of Indianapolis, Attorney Albert Stump of Indianapolis, and Dr. E. B. Jewell of Logansport. The theme for the scientific program will be "Traffic Emergencies."

If you are a member of the Indiana State Medical Association, you are cordially invited to come.

IRA E. PERRY, M.D., *Councilor*.

TWELFTH COUNCILOR DISTRICT

The Twelfth District has had a very good year.

The annual meeting, which was held in Fort Wayne, was one of the best attended in many years. The component societies are active scientifically, and all are cooperating, to the best of their ability, in the problems which confront the medical profession.

A. JEROME SPARKS, M.D., *Councilor*.

THIRTEENTH COUNCILOR DISTRICT

There is nothing unusual to report for the year of 1938.

The officials of the Thirteenth District are planning an excellent program for our annual meeting to be held at Plymouth on November 2, 1938.

W. B. CHRISTOPHEL, M.D., *Councilor*.

REPORT OF EXECUTIVE COMMITTEE

House of Delegates and Council,

Indiana State Medical Association.

Gentlemen:

I. INTRODUCTION

Double Quick—March. Events are moving so fast and so far as regards the economic, social and professional aspects of medical practice in America today that it is taking all the ability, energy and ingenuity of the Executive Committee to keep up with new developments from day to day, let alone analyze or even sometimes make heads or tails of the situation faced by the profession. Despite this rush of action and the kaleidoscopic variation of events from day to day, or even from hour to hour, your Executive Committee has not allowed the Association to drift aimlessly or to bog down through inaction. This has necessitated sometimes instantaneous decision and prompt action. How well we have succeeded and how wise have been our decisions on all occasions only the future can determine.

The complexity of the problems facing the Committee, the many questions coming under consid-

eration, can be ascertained best from the minutes of the committee meetings as printed from month to month in THE JOURNAL. But even those written records tell only half the story. However, what follows will give you some idea of the problems here in Indiana and what we are attempting to do about them.

General Statement in Regard to the Policy of the Executive Committee in Matters Relating to Governmental Agencies. In general the Executive Committee of the Indiana State Medical Association in dealing with the various governmental agencies such as the Farm Security Administration, the Crippled Children's Bureau, the Bureau of Maternal and Child Health of the State Board of Health, has adopted a policy stressing the following points:

(1) The Indiana State Medical Association had nothing whatever to do with the set-up of these governmental agencies and whether the Executive Committee and the physicians of the state like these various agencies or not, the Committee feels that since they are here with us the profession should do what it can to cooperate with these various governmental groups.

(2) The State Association through its various liaison committees has helped formulate the general policies and programs of activity assumed by these various governmental agencies in this state.

(3) The program in each case must be carried out not on a statewide basis but only through the cooperation of each local county medical society, as conditions vary from county to county and the situation is not exactly the same in any two parts of the state.

(4) Your committee urges each local county medical society to take control of these matters in its locality, cooperate with these agencies and not allow these matters which have to do with health problems and the care of the sick slip out of the hands of the profession into the hands of social workers, lay organizations and groups which work without cooperation with the profession.

(5) It has been left absolutely to each county medical society as to whether or not it desires to cooperate with any or all of these governmental agencies.

Informal Discussion Meetings. In addition to meeting as a committee within the past few years the Executive Committee has invited as guests various committee chairmen and representatives from allied groups to participate in the informal discussions at noon luncheons. Through this method the Executive Committee has kept informed of the work of the legislative committee, the Bureau of Publicity, the Bureau of Maternal and Child Health of the State Board of Health, the activities of the State Board of Health and the Crippled Children's Bureau. Among those

who attended these luncheons during the year were Dr. Beatty, chairman of the Legislative Committee, Dr. Gastineau of the Bureau of Publicity, Dr. Harvey of the State Board of Health, Dr. Mettel, director of the Bureau of Maternal and Child Health, Dr. Greer, director of Services to Crippled Children, and Drs. Beckman and Asher of the State Association liaison committees acting with the Bureau of Maternal and Child Health.

Indiana Plan of Preventive Medicine. The Indiana State Medical Association distinguished itself and gained recognition beyond the borders of its own state on two different occasions during the year. The first occasion of course was that of the acceptance of the Indiana plan for preventive medicine by the House of Delegates of the American Medical Association as a program to be followed in other states, and the second occasion was the successful meeting of the Northwest Conference in Chicago on February 13 to which the Indiana State Medical Association was the host. This meeting concluded a most interesting two-day session in that city, the first day being devoted to the annual Indiana secretaries' conference which was attended by some fifty representatives of the state, while the second day Indiana entertained the Northwest Conference. It was at this meeting that the Indiana plan was first presented to a group outside of this state. Dr. Herman Baker made a presentation of the plan in general. Dr. F. M. Gastineau, representing the Bureau of Publicity, spoke of the details of the plan, while Dr. A. M. Mitchell, chairman of the Committee on Secretaries' Conference, told how the idea had been worked out in some of its phases in Vigo county. So favorable was the reception of the idea at the Northwest Conference that the Executive Committee, the Bureau of Publicity, and the officers of the Association determined to carry the idea to San Francisco. Here the plan was presented to the House of Delegates and adopted as a national program for the American Medical Association. The Bureau of Health and Public Instruction of the American Medical Association has prepared pamphlets in regard to the plan which will be sent to each state medical society. Numerous invitations have been received at headquarters office to show the display of the Indiana plan at various medical meetings. The Executive Committee has accepted invitations to show at the Wisconsin State Medical Society meeting in September and the Southern Medical Society meeting in November.

Three times during the year because of the active, progressive attitude of the State Association, its officers have been invited to Washington to participate in conferences and congressional hearings of national importance.

II. ADMINISTRATIVE

Roughly speaking, the administrative duties of the Executive Committee fall into two classifications, those that have to do with the internal

organization of the State Association and those that are economic in character.

Organization Matters

(1) Membership.

a. Membership and Medical Population in Indiana. It is with great pleasure that the Executive Committee reports that the membership in the Association is the largest in the history of the organization. Figures for the past ten years follow:

Year	Number of Physicians in Indiana	Regular Members	Honorary Members	Total Members
1929	4,102	2,734		2,734
1930	4,102	2,739		2,739
1931	4,073	2,767		2,767
1932	4,073	2,725		2,725
1933	4,073	2,710		2,710
1934	4,049	2,741		2,741
1935	4,049	2,777	30	2,807
1936	4,025	2,803	29	2,832
1937	4,025	2,942	40	2,982
1938	4,081	2,970	62	3,032

These figures show a steady growth in the Association and indicate that the physicians of the state realize more and more the necessity of being affiliated with the state organization.

After falling for a number of years the medical population of the state is now starting an upward trend. The new 1938 directory lists 56 more physicians in Indiana now than were listed in the 1936 directory.

b. Honorary Members. The Committee urges each county medical society to check its records in order that all physicians who are eligible to be honorary members may be included in this classification. Article IV, Section 5, of the Constitution reads as follows regarding honorary membership:

"Honorary members shall consist of representative teachers and students of science allied to medicine and of physicians and surgeons of distinction not members of the Indiana State Medical Association, who may by vote of the House of Delegates be elected to honorary membership; and any physician of the State of Indiana who has attained the age of seventy-five years and has held membership in the Indiana State Medical Association for twenty years or more may be elected to honorary membership by vote of the House of Delegates, provided his name be proposed for such honorary membership by the county medical society of which such physician is a member."

The Executive Committee has ruled that if the honorary members desire THE JOURNAL the subscription price should be paid for by the local county medical society.

c. Physicians Who Are Officers of Local Societies but Are not Members of the State Association. In several instances physicians are officers of local societies but are not members of the State Association. The American Medical Association made it a point to straighten out this anomalous situation in several counties and it is hoped that here-

after the county society will not elect a physician as an officer of the county society when he is not a member of the State Association. This is due to the fact that in several societies a physician may belong to his county society without paying fees for State Association membership.

(2) **Employment of Full-Time Secretaries by County Societies.** The Executive Committee is particularly pleased to note the interest on the part of several of the local county medical societies in the metropolitan centers in considering the establishment of full-time offices and the employment of full-time secretaries. The St. Joseph County Medical Society has passed a resolution to appoint such a secretary, and the Lake County, Marion County and Vanderburgh County Medical Societies are considering such action.

(3) **Rules upon Giving Information in regard to Physicians.** During the year many letters, telephone calls and personal requests come to the headquarter's office for information in regard to the standing of physicians. In order that there may be no misunderstanding the Executive Committee has adopted the following rules in regard to giving out information on practitioners by the headquarters office:

1. No names of physicians are to be given over the telephone.
2. Information in regard to specialties should be given in accordance with the designations contained in the American Medical Association directory.
3. Wherever possible the person asking for information should be referred to his family physician.
4. Wherever possible the matter should be referred to the secretary of the local county medical society.

(4) **Reappointment of Committee on Expert Testimony.**

At the request of L. L. Bomberger, the retiring president of the Indiana State Bar Association, the Executive Committee authorized Dr. Herman Baker, president of the Indiana State Medical Association, to appoint a committee to act jointly with a similar committee from the State Bar Association to deal with the subject of expert testimony. A similar committee was created several years ago but it had been discontinued.

(5) **Necessity for Enlargement of Annual Session Headquarters.** In no respect has the growth of the Association been more visible than at the annual sessions. In fact within the last decade the growth has been so rapid that it is no longer possible with the exception of the French Lick Springs Hotel to house the annual session in any one hotel in this state. As a result, this year's meeting is being held for the first time at the Murat Temple which will mean an additional expense of some \$2,000 but which the committee feels is a necessary expenditure in order to house adequately the 1938 meeting. The increase in registration at conventions may be seen from the following figures

and this year it is expected that the attendance figure will be the largest in the history of the Association:

1934-----	Indianapolis	-----	1,814
1935-----	Gary	-----	1,011
1936-----	South Bend	-----	1,150
1937-----	French Lick	-----	1,154

(6) **New Constitution and By-Laws.** Copies of the new Constitution and By-Laws have been printed and distributed to county medical society secretaries, officers, councilors, past presidents, and members of the House of Delegates. If additional copies are desired these are available.

(7) **Clarification of By-Laws Recommended.** The Executive Committee recommends a clarification of the By-Laws of the State Association as a result of the following situation: A physician had his legal residence in one county, his office in another county, and joined the medical society of still another county. The Committee feels that the By-Laws which read as follows should be clarified in regard to this subject:

Chapter X, Section 8.—A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

The Committee suggests the following change:

Chapter X, Section 8.—A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he has his office or has the major part of his practice.

(8) **The Birth of a Baby Film.** The motion picture entitled "The Birth of a Baby" which was shown at the eighty-eighth annual session of the State Association at French Lick last October was officially approved by the Executive Committee as a film which is suitable for presentation to the public. Since the French Lick meeting this film has been shown in numerous cities in the state and the Committee compliments the producers upon the high educational plane of the film and the good taste which has marked its advertisement and promotion before the public.

ECONOMIC, SOCIAL AND LEGISLATIVE PROBLEMS

(1) **Care of the Indigent Sick.**

a. *Problems Are Acute.* As many problems as ever exist in rendering medical services to the indigent sick in Indiana. In the majority of cases the services rendered are satisfactory to all three parties concerned, the patient, the taxpayer and the physician, but during the year your Com-

mittee has been faced with numerous complaints, some that patients are not allowed to choose their own physicians, others that physicians are hospitalizing cases needlessly and are making unnecessary visits to these patients.

b. *Complaints against Authorities Sending Local Cases to University Hospitals.* During the year several complaints have been received by the Executive Committee protesting against the tendency on the part of authorities "to send surgical cases who are on relief to one of the hospitals in Indianapolis, the Robert Long or the Coleman." The complaints in each case stated that these were "cases whose work could be done at home quite as well as they could be done in Indianapolis."

c. *Complaints against costs at local hospitals.* On the other hand statements also have been received from county and township authorities that due to the high costs of medical services and surgical fees in some local communities these authorities do everything possible to get these cases into one of the University hospitals in order to save local funds. The county pays for the hospitalization but the medical services are rendered free of charge in the state institutions.

d. *Essentially a Local Problem.* In answer to all these complaints the Committee reaffirms the policy which has been taken by the State Medical Association that wherever possible medical services should be rendered to the patients by their own physicians in their own institutions in their own localities. The Committee feels that local county medical societies should contact their township and county authorities and come to a reasonable agreement which will be fair to the patient, the local taxpayer, and the physician, in handling these cases. The Committee again calls attention to the fact that no patient is admitted to the University Hospitals for treatment unless referred by a physician.

e. *Expenditures for Medical Care of Relief Cases.* Report has been made by the Governor's Commission on Unemployment Relief stating that medical care accounted for almost one-fourth of the total money spent for relief in 1937. This includes hospitalization, drugs, nursing services, etc.

(2) Sickness Insurance and Socialized Medicine.

a. *Proposals of the Committee of 430.* Your committee kept in close touch with the proposals of the so-called "Committee of Physicians" which were broadcast over the names of 430 physicians. For the most part the committee felt that the proposals of the committee of 430 were not sound as they tended to be an entering wedge and even more than an entering wedge—a real program for socialized medicine. For this reason the committee opposed the proposals and the legislative committee drew up a resolution of opposition.

b. *Discussion of Socialized Medicine by Indiana Farm Bureau.* Representatives of the Executive Committee attended the program upon socialized

medicine which was held under the auspices of the Indiana Farm Bureau during the regular meeting of the Farm Bureau in Indianapolis on November 16, 17, and 18, 1937. It developed that this part of the program was merely an oratorical contest in regard to socialized medicine or what was termed "free medicine" in which the contestants were for the most part farm housewives. It was evident that the participants had been very much influenced by the propaganda of social service workers and the advocates of socialized medicine.

c. *Women's Clubs Discuss Socialized Medicine.* During the year several notices appeared in newspapers in regard to programs that were being held by women's clubs throughout the state in which the members read papers on such subjects as "Chaos and Health Services," "Should Medicine Be Socialized," and "Opposition to Health Insurance in America."

d. *First Hand View of Socialized Medicine in Europe.* The committee wishes to commend Dr. W. U. Kennedy of Newcastle upon his splendid first-hand analysis of the situation in Europe as he found it on his recent visit to England and the Continent. Indiana is fortunate in having as one of its members a man like Dr. Kennedy who has made a first-hand study of socialized medicine over a number of years, his views and opinions upon the subject being backed by some dozen or more trips to Europe since the War. Dr. Kennedy writes in part concerning his opinion of medical health services in Europe as follows:

"The French situation is so chaotic no one can give a true account. No two communes are alike in their payments, the original law has had so many modifications that a new decision has to be made to meet every question. But in general the rates are so low as to be absurd and as a result every sort of evasion and crookedness is rampant.

"When I went to the actual panel doctors, again the old story, 'It's nothing but a drudge' . . . 'It's rotten' . . . 'We can't do good work' . . . 'We are only running sorting rooms' . . . 'Our standards are low and getting lower' and 'I'd like to be out of it but can't do anything else.' And these comments were freely made by men of standing in their small communities. So it's the same old story."

(3) Indiana Health Cooperatives.

a. *No Cooperatives in Indiana.* Since the foundation of the Economy Health Association rumors of the creation of various health cooperatives in Indiana have been current. At the present time the Executive Committee does not know of any community in this state where a health cooperative is successfully operating. During the year a conference was held with Frederick I. Barrows, attorney for the Indiana Farm Bureau, who discussed the possible creation of cooperatives here in Indiana. However, so far as the Committee knows, nothing has been done by the Farm Bureau along that line.

The health cooperative movement received its greatest impetus during the year due to the Home Owners' Loan Corporation group that was formed in Washington which created nationwide comment. So far as your committee knows no attempt has been made by any local government agency to form such cooperatives in this state.

b. *Probe by the Department of Justice.* Although it did not involve the Indiana profession or the Indiana State Medical Association, the news of the United States Department of Justice probe fell as a severe shock upon every physician in Indiana, for it involved and frankly questioned policies which have been currently followed by medical organizations throughout the country. Following passage of a resolution by the Vanderburgh County Medical Society urging a complete study of the situation, in view of the recommendations of the National Health Conference at Washington, the study of the subject of health insurance by the Republican platform committee, and the action of the United States attorney general's office against the American Medical Association, the Executive Committee recommended calling the Council and the ex-presidents of the State Association into a conference on the situation. The recommendations of the committee appointed as the result of this conference will be placed before the House of Delegates.

(4) *Survey of Medical Care for All the People by the A.M.A.* The Executive Committee approved and voted to cooperate with the American Medical Association in carrying out its survey of medical care for all the people. Notices, articles in THE JOURNAL, bulletins and talks by the members of the Committee, impressed upon the physicians the necessity for this survey.

The Executive Committee was very much disturbed over the great amount of misunderstanding that existed among the profession concerning the survey. In one extreme instance it was reported that the officers of the American Medical Association and the State Medical Association "had sold out to the administration and the social workers in order to further socialized medicine" and this was the reason for the survey. The Committee felt that such misunderstanding was most unjust both to the American Medical Association and to the State Association and every effort was made to correct this misunderstanding on the part of the physicians in regard to the survey.

The Committee appreciates the fine cooperation it has received from the majority of the county societies which have undertaken the survey and it urges those county societies which have not yet undertaken the survey to do so as soon as possible in order that Indiana may carry out the suggestions of the American Medical Association 100% in making this survey.

(5) *Complaint in regard to Medical Service to WPA Workers.* According to government ruling surgical services must be rendered to WPA workers

through federal facilities wherever such federal facilities are available which, in Indiana, is the Veterans' hospital in Indianapolis and the Marine hospital at Evansville. The complaint has been received that the administration has changed its policy so that WPA patients in one part of the state are being sent to these hospitals and are being taken care of there instead of by their own physicians in their own localities. The Executive Committee made an investigation into this matter to find out whether it was a local ruling or a state ruling which makes it necessary for a man in one part of the state who must have a hernia operation to be transported to another part of the state to be operated upon. It definitely determined that it was a ruling of the United States Compensation Commission.

(6) *Care of Crippled Children in Indiana Under Social Security Act.* From time to time Oliver W. Greer, M.D., director of Services to Crippled Children of the State Department of Public Welfare has appeared before the Executive Committee and discussed with members the program of his bureau. Following the policy adopted by the committee it was recommended that his work be carried on, through and with the cooperation of the local county medical societies and as sanctioned by the advisory committee to the state Crippled Children's Bureau.

(7) *Farm Security Administration.* Last year a general outline of principles governing medical services to farm relief clients was formulated by the Farm Security Administration and the Executive Committee. During this past year the Farm Security Administration through its local officers, Mr. M. E. Hays, Regional Cooperative Specialist, and F. V. Meriwether, M.D., Assistant Medical Director, has contacted many of the district and local county medical societies and in some instances has set up tentative plans under an agreement with local societies. Details of the principles set up by the State Medical Association may be found in the May, 1937, issue of THE JOURNAL of the Indiana State Medical Association.

At the request of Dr. R. C. Williams, medical director of the Farm Security Administration at Washington, the Executive Committee agreed to act as a reference committee wherever contentions which cannot be settled locally arise over bills that may be presented for medical services rendered Farm Security Administration clients.

(8) *State Compensation Insurance.* The Executive and Legislative Committees have kept close touch with the trend toward having the State write all compensation insurance. A special committee has been appointed by the Governor to investigate the plan to have insurance written by the State as in Ohio and several other states. Representatives of the Association attended the hearing of the Governor's committee as observers which was held in the House of Representatives on March 11, 1938. This will be one of the critical

questions to come before the state legislature when it convenes next January and your Committee recommends that the House of Delegates give some time for a complete study of this subject in all its various details at this time.

(9) Indiana-Illinois Boundary Line Practice. Several complaints have been received by the Executive Committee in regard to the inequity of the present law which makes it illegal for an Indiana physician to cross over into Illinois and to practice without an Illinois license unless he is rendering consultative service, while it is not illegal for an Illinois physician to practice in Indiana without an Indiana license. The Executive Committee entered into correspondence with the Illinois State Medical Society and the secretary of the Illinois State Board of Medical Registration and Examination, and it is hoped that in the future the boards of the two states may in some manner eliminate any injustice that is being done to Indiana physicians by this ruling of the Illinois Board. At the present time the Committee is assured by the secretary of the Illinois Board that a reputable physician from Indiana may obtain an Illinois license by personally calling upon the Board and presenting his credentials to the board and undergoing a verbal rather than a technically written examination.

(10) Modernizing Indiana Marriage Laws. The Executive Committee went on record stating that the Indiana State Medical Association would be glad to cooperate with the state administration and other organizations and agencies in formulating a program of modernization in the statutes covering marriage in Indiana.

(11) Fee Splitting. Throughout the year many articles in regard to fee splitting, which appeared in various magazines, came to the attention of the committee. The committee feels that such publicity is indeed unfortunate and that such conditions as mentioned, if true, must be corrected, if the profession is to merit public confidence.

(12) Letter from Medical Society of the District of Columbia. A letter was received from the Medical Society of the District of Columbia thanking the Indiana State Medical Association for the "fine cooperation offered by the Indiana State Medical Association and its county societies in sending telegrams to Washington representatives opposing the passage of the District of Columbia antivivisection bill."

(13) Protest against Welfare Officer in Cabinet. Letters were sent to the President of the United States and at various times to the Congressmen urging the creation of a health department with the Surgeon General having a place in the cabinet, and protesting against any reorganization bill which would place the United States Public Health Service and the United States Surgeon General's office under any department dominated by a social service worker.

(14) Article by President of State Bar Association. The Committee commented favorably upon the article which appeared in *THE JOURNAL* by L. L. Bomberger, president of the Indiana State Bar Association, which discussed the reasons from a legal standpoint why the socialization of medicine would be a great mistake. The Committee felt that this was one of the finest presentations upon the subject that had yet been made.

The Committee also approved the address against state medicine made by Representative Samuel B. Pettengill before the Chicago Dental Society during the year.

(15) Compliment by Dr. Thomas Parran. Dr. Thomas Parran, Surgeon General of the United States, at a meeting in Indianapolis stated, "The Indiana State Medical Association stands foremost in the country in its assistance and cooperation in controlling and combating syphilis."

(16) Articles by David Dietz Commended by Committee. The Committee on several occasions particularly commended the articles which appeared in *The Indianapolis Times* by David Dietz, a staff writer for the Scripps-Howard newspapers. These articles have been carefully prepared, well presented and were thought by the Committee to be unusually worthy.

(17) Modern Witchcraft. The Committee also commended highly the work that is being done by the Better Business Bureau of Indianapolis, particularly the survey into the activities of quack practitioners throughout the state which appeared in the December issue of the Better Business Bureau *Bulletin* under the heading of "Modern Witchcraft."

The Committee also recommends to each physician the booklet prepared by the Better Business Bureau entitled "Facts You Should Know about Health Cures." This book will give an answer to your patients when they ask questions in regard to the value of many of these highly advertised health cures.

III. THE JOURNAL

(1) Pauley Company Prints Journal. Bids for printing *THE JOURNAL* were opened and starting with January, 1938, *THE JOURNAL* has been published by the C. E. Pauley Company of Indianapolis.

Within the last year *THE JOURNAL* has received many compliments both for its contents and its make-up. In fact, it is generally rated as one of the leading state medical journals in the country.

(2) Donation of Advertising Space to American Red Cross and the National Tuberculosis League. During the year the Committee made donations of advertising space to both the American Red Cross and the National Tuberculosis League. This was a donation of one-half page each for these organizations in 1937, the first for the Christmas seal advertisement and the second a Red Cross ad which was carried in the November *JOURNAL*.

Recommendation for a full page for each of these organizations has been made by the Committee for 1938.

(3) **Solicitation of Non-Members for Journal Subscriptions.** According to the records there were in Indiana in November, 1937, 743 physicians who were not members of the Association but who according to the records could be solicited for subscriptions to THE JOURNAL. The Committee authorized the solicitation of these physicians for subscriptions to THE JOURNAL and approved a plan whereby THE JOURNAL was sent to 150 to 200 of these physicians each month until the entire list was addressed, in order to distribute the cost and see what the result might be. Only those physicians against whom there was nothing in the files of the Association were sent THE JOURNAL. Of this number 13 subscribed to THE JOURNAL and 3 subsequently joined their local county medical society and hence became members of the Association.

(4) **Number of Pages Printed in 1937.** The number of pages printed in 1937 as compared with 1936 and the percentage of advertising pages follows:

Year	Reading Pages	Advertising Pages	Total	Per Cent Advertising
1936	680	472	1,152	41.0
1937	674	514	1,188	43.0

IV. MEDICAL DEFENSE ACTIVITIES

(1) **Malpractice Cases.** A year ago at the time of this report, August 1, 1937, the following eleven cases were pending before the Committee, one of which has been closed during the year, leaving ten cases still pending:

Case No. 129—No new developments since 1925.

Case No. 156—Suit filed March 27, 1928. Verdict for plaintiff after six days' trial in 1933; case to be appealed. Expense, \$66.28, paid September 23, 1929; \$350.00, paid June 30, 1933.

Case No. 200—Suit filed February 12, 1932. Pending.

Case No. 202—Suit filed August, 1934. Plaintiff refused to plead further after overruling of her demurrer to the answer in this cause and case was finally closed December 17, 1937. Expense, \$100, paid April 12, 1937; \$15.00, paid January 26, 1938.

Case No. 203—Suit filed August 21, 1934. Pending.

Case No. 210—Suit filed September 18, 1935. Case venued and still pending.

Case No. 212—Suit filed November, 1935. Case tried December 2, 1936. Nine days' trial and argument; verdict against defendant; case to be appealed by defendant. Expense to date, \$293.15, paid January 13, 1937.

Case No. 214—Suit filed April 1, 1936. Case venued and still pending.

Case No. 215—Suit filed and defendant ordered to appear June 22, 1936. Report May 17, 1938,

plaintiff deceased and motion filed to dismiss action. Court ruling on dismissal pending.

Case No. 216—Suit filed March 16, 1936. Pending.

Case No. 219—Suit filed March, 1934. Verdict against the defendant. Appeal pending.

Since August 1, 1937, and up to August 1, 1938, the following four new cases have come before the Committee, none of which has been closed, making a total of fourteen cases pending at the present time as against eleven unclosed cases at the same time last year:

Case No. 221—Suit filed July 1, 1937. Pending.

Case No. 222—Suit filed July 8, 1937. Pending.

Case No. 223—Suit filed July 31, 1937. Pending.

Case No. 224—Suit filed April 8, 1938. Pending.

The total cost for medical defense from August 1, 1937, to August 1, 1938, was \$15.00. The cost for the preceding year was \$1,554.42.

(2) Medical Defense Fund Statement, from August 1, 1937, to August 1, 1938:

Balance August 1, 1937----- \$2,539.20

Deposits:

Dues,

1—1936 member @ 75c	\$.75	
71—1937 " @ 75c	53.25	
2,945—1938 " @ 75c	2,208.75	2,262.75

Interest on bonds----- 401.25

\$5,203.25

Disbursements:

Malpractice fees -----	\$ 15.00	
Salary of Association attorney	600.00	
Treasurer's bond -----	15.00	
Miscellaneous -----	6.55	636.55

Balance in checking account

August 1, 1938----- \$4,566.65

V. CONCLUSION

In Memory of Doctor Clark

Despite the fact that much has happened in the last twelve months and the general picture in regard to medical services is far from what could have been anticipated a year ago when he was president, the memory of Dr. E. D. Clark's courage and personality often has been an inspiration to the Committee. We feel we express the consensus of the entire profession of the state when we say that Dr. Clark's outspoken opinions and reactions to those matters with which the profession is so concerned today are indeed sadly missed.

Respectfully submitted,

CLEON A. NAFE, M.D., *Chairman*

C. H. McCASKEY, M.D.

HERMAN M. BAKER, M.D.

E. M. VAN BUSKIRK, M.D.

M. A. AUSTIN, M.D.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates,

Indiana State Medical Association.

Gentlemen:

During the last year many of the various threats to the present system of medical practice have culminated in an organized activity. During the year it has been evident that the Federal Government was studying the question of medical care preparatory to making recommendations to Congress.

The report of the committee headed by Josephine Roche, which culminated in the National Health Conference held in July and the expressed opinion of many of those at that conference endorsing compulsory health insurance, is well known to all.

Finally, the threatened suit on the part of the Government based on the implication that various constituent parts of medical organization had violated the anti-trust laws.

This threatened suit was an outgrowth of the activity of a cooperative health group organized in Washington by employees of the Home Owners Loan Corporation.

Little of great importance has occurred locally in Indiana except that your committee wishes to compliment those responsible for the so-called Indiana Plan and has deemed it a pleasure to have cooperated with this movement.

Your committee has consistently felt that its activities should be confined exclusively to those projects which were first approved by the official officers and bodies of this association.

Your committee recommends concerted attacks be continued to protect the welfare of the profession on the following fronts:

- (1) Education and contact of legislative and congressional candidates as to health insurance and the status of government in medical care and public health, with reports back to headquarters office as to opinions of candidates.
- (2) Careful analysis of each county by each county medical society as to whether anyone is neglected medically. Corrections made in system of care of indigent, if needed, by each local society. Education of each member to the necessity of charging middle group upon basis of ability to pay and arranging for budgeting of larger accounts of middle group.
- (3) Person to person education by members of the profession and auxiliary members, especially members of such groups as parent-teacher, farm bureau, labor, luncheon clubs, church groups and fraternal groups, with the aim of preventing such groups in Indiana from endorsing compulsory health insurance or any other form of medical service detrimental to the public. (Printing

of cards giving important talking points for above work.)

- (4) Active part by each county society in all public health work with proper local publicity giving credit to local society.

Respectfully submitted,

NORMAN M. BEATTY, M.D., *Chairman*

O. T. SCAMAHORN, M.D.

GEORGE DANIELS, M.D.

GEORGE DILLINGER, M.D.

W. W. WASHBURN, M.D.

E. L. SCHAIBLE, M.D.

J. WILLIAM WRIGHT, M.D.

KEITH T. MEYER, M.D.

B. J. LARKIN, M.D.

REPORT OF THE BUREAU OF PUBLICITY

House of Delegates,

Indiana State Medical Association.

Gentlemen:

I. INTRODUCTION

At this time when the profession is demanding that its side of the story be told to the American public in answer to the tremendous flood of criticism of the medical profession which is pouring out daily, weekly, and monthly through magazines and the press, the Indiana profession finds itself in the possession of an agency that already is set up here in this state that may be used to present its story. As a matter of fact that is indirectly what the Bureau of Publicity has been doing for the past decade through news releases and public speaking programs. The Bureau always has guarded its actions carefully against any tinge of propaganda and believes that in the future as well as in the past the statements and bulletins issued by the Bureau should have as their object news based upon the best scientific knowledge available by the Indiana profession. In the past, however, for the most part the Bureau has stressed matters having to do with the prevention and treatment of disease rather than the economics of medicine. Perhaps now is the time to turn the attention of the Bureau more to that matter which apparently from the number of articles appearing on medical economic subjects is of vast interest to the public.

During the year numerous requests were made of the Bureau of Publicity for information concerning the type of work the Bureau does, its purposes and its method of procedure. These requests were answered in detail by the Bureau and in a number of instances bureaus are now functioning in other states which were developed along the lines and are guided by rules similar to those under which publicity work is carried out by the State Association in Indiana. This indicates the rising demand on the part of the public and profession for readable educational articles in the press from reliable sources upon the subject of health.

Sensing the rising demand on the part of the public for a tangible plan of action for attacking health problems, the Bureau of Publicity during the last year developed the "Indiana plan" of preventive medicine which has been approved by the American Medical Association as a proposal which might be put into effect in other states.

Never before has the drive to change the practice of medicine been so well organized as at the present, with floods of publicity appearing through press services and on the pages of periodicals, both well and poorly edited. These writings have carried to the reading public of every level, a plan originating from central bureaus of the government urging that our present methods of serving the American people both as to the cure and the prevention of disease necessarily must be changed and placed under the control of governmental agencies. One of the principal activities of the Bureau during the past year has been to pay particular attention to these methods by which it seems that a greater demand for socialization of the medical profession has been attempted. With full knowledge of the aggressive methods in publicity in the hands of those advocating such changes, the Bureau has made an earnest attempt to combat them insofar as the State of Indiana has been concerned by developing the "Indiana plan" which the Bureau feels is a logical answer to the threatened socialization of medicine.

II. THE "INDIANA PLAN"

The Bureau of Publicity made a new approach to the problem of preventive medicine which finally was expanded and developed into the now nationally recognized "Indiana plan." The development started shortly after the state meeting last year when the Bureau of Publicity felt that the subject of diphtheria should be attacked, particularly in those districts where diphtheria cases were most numerous. As a result, the State Board of Health cooperated with the Bureau in preparing maps, statistics and graphs showing the counties where diphtheria cases had occurred and a comparative diphtheria record for the entire state for 1937 and 1938. At the suggestion of the Bureau the secretary of the State Board of Health prepared a statement in regard to the subject which was published in *THE JOURNAL*. The method worked so well for diphtheria that it was enlarged and the same methods were used in formulating a plan of preventive care for smallpox and other diseases. In order to present the matter to the public the newspaper release, "The Smallpox Curve Goes Up," was prepared by the Bureau, and this article caused so much comment upon the part of the public and the profession that the needs of coordination in attacking these problems became most evident. This was the background from which the "Indiana plan" evolved.

As a result of several meetings between members of the Bureau of Publicity and Dr. Herman Baker, president of the State Association, the plan

as it has been developed in *THE JOURNAL* became effective January 1. Pamphlets were prepared and an exhibit of the plan was presented at the annual session of the American Medical Association at San Francisco, with the result that the plan was approved by the House of Delegates and the exhibit received a special citation of merit. Three pages of *The Journal of the American Medical Association** were devoted to the "Indiana plan" and the Bureau of Health and Public Instruction of the American Medical Association has prepared and distributed reprints of the plan to all of the state medical societies in the country. In addition, daily requests are received at the headquarters office from all over the country in regard to the plan, both from medical and lay groups, and action is being taken by the American Legion to feature the plan in its program of health work. As other national groups interested in the health movement do the same thing this will mean that all preventive medicine programs—tuberculosis, cancer, diphtheria, smallpox, eyesight conservation—will be promoted only with the cooperation and under the supervision of the local county medical societies. It is the feeling of the Bureau of Publicity that the "Indiana plan" solves something which no plan of socialized medicine has yet been able to solve, and that is the prevention of disease. It is the hope of the Bureau that each member of the Indiana State Medical Association and the members of the House of Delegates will study this plan, be thoroughly familiar with it, and will give suggestions, comments and criticisms which will enable the plan to be carried out more effectively by the physicians in every local county medical society in 1939 than it has been in 1938, the year of its inception.

III. SPECIAL COMMENDATION BY BUREAU

1. *Better Business Bureau.* Once again the Bureau of Publicity wishes to compliment in the highest terms the work that is being done by the Indianapolis Better Business Bureau and the publications that appear in the *Better Business Bureau Bulletin* from time to time concerning quack remedies and quack doctors. The Bureau was particularly impressed with the December issue of the *Bulletin*, which featured an investigation by the Better Business Bureau of the use that various drugless healers are making of so-called radio-diagnostic machines. The article has the significant headline, "Modern Witchcraft."

The Bureau particularly wishes to call attention to the booklet which has been prepared by the Better Business Bureau entitled, "Facts You Should Know about Health Cures." This booklet gives in a few pages much information in regard to the subject of quackery written for both the layman and the physician. Copy of this booklet

* *Journal of A.M.A.*, Vol. III, Number 1, July 2, 1938, pp. 49-51 (Organization Section).

may be obtained from the Better Business Bureau of Indianapolis.

2. *Fortune Magazine*. The Bureau feels that the splendid articles upon various medical subjects which have appeared in *Fortune* magazine have been so well done that a special complimentary word is the least that can be given here to the editors of that publication. It is most unusual for a lay magazine to present in such outstanding manner articles on medical subjects. The following letter was received from *Fortune* magazine in answer to a communication from the Bureau complimenting *Fortune* upon its fine presentation of medical subjects:

"Thank you for your splendid letter of November 2, in which you inform us that your Bureau, speaking for the three thousand members of the Indiana State Medical Association, heartily endorses our policy of presenting medical articles in *Fortune*, as a public contribution in the field of individual and public health.

"The Editors of *Fortune* are well aware of the magnitude of their task, in attempting to present material of a medical nature to the lay public, in a manner which will hold the reader's interest, and at the same time retain the essential quality of accuracy. In our presentations, we strive for high qualities of ratiocination and workmanship, and safeguard the accuracy of the material by having all articles of a medical nature carefully checked by competent medical authorities before they are published in *Fortune*.

"When we receive such a fine commendation as this one you have so courteously extended, we feel that our efforts are amply rewarded. We placed a copy of your letter on our bulletin board, so that all members of our staff might share our pleasure in its contents.

"Please be assured that we deeply appreciate your official cognizance and commendation of our medical presentations.

"We shall count it a privilege, in the future, to bring to your attention further articles appearing in *Fortune*, which may be of particular interest to you."

3. *Articles by David Dietz*. During the year David Dietz, science editor of the Scripps-Howard newspapers, had a series of articles on medical subjects which have been of tremendous value. A letter was sent to the editor of The Indianapolis Times, complimenting the Times upon the Dietz articles.

4. *Indianapolis News and Indianapolis Star Editorials*. Editorially, The Indianapolis News and The Indianapolis Star have stood absolutely against the socialization of medicine and all its implications. The Bureau of Publicity herewith publicly commends The Indianapolis News and The Indianapolis Star for their sanity and judgment in treating this subject of socialization of medicine.

IV. ETHICAL PROBLEMS

1. *Advertising in Directories*. Solicitation of physicians for advertising in various directories has become in the opinion of the Bureau nothing short of a racket. These directories have been all the way from high-powered publications which charged the physicians up to \$20.00 for listings to local handbills for which the physician is charged a few dollars to have his name printed. The Bureau of Publicity feels that when such directories are promoted locally the entire matter should be investigated by the local society officers or the board of censors before a physician allows his name to be used in them, and in the case of national or state-wide publications the matter should be referred to the state or the national headquarters office. Information in regard to many of these directories is on file at the headquarters office of the State Association and the American Medical Association with complete data in regard to the backers and whether or not the project is legitimate.

2. *Neon Signs*. "Are neon signs ethical?" is the question which several times has been asked the Bureau of Publicity. Of course a great deal depends upon the size, the location and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence unethical. If all the physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the others did not use neon signs, that would give undue prominence to one physician's name, and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical.

3. *Issuing of Health Certificates*. With public education in regard to venereal disease control, a reprehensible practice on the part of a few physicians has been brought to the attention of the Bureau of Publicity, that is, the issuing of so-called "health certificates" for prostitutes. A sample of these certificates follows:

"Office Hours	Office Phone _____
by Appointment	Residence Phone _____
Street Address _____	_____, Indiana
Dr. _____	M.D.
Specializing in	
Genito-Urinary Diseases	
HEALTH CERTIFICATE	
I hereby certify that I have this date _____	
examined _____ and find her free	
from Gonorrheal Infection at this time _____	
Signed _____, M.D."	

The Bureau issued the following statement concerning such certificates:

"1. In issuing a certificate such as the above the physician is giving to prostitutes a professional statement to enable them to continue prostitution which is very discreditable to the medical profession.

"2. The certificate plan has been tried officially in many cities and has proved a failure and is not regarded as dependable.

"3. It is very doubtful whether a dependable cer-

tificate can be given, as it is not always possible to make a correct diagnosis.

"4. To be at all dependable a certificate would have to be given following each act of intercourse.

"5. The Bureau of Publicity distinctly disapproves any form of certificate, and especially the one which appears above, where the certificate is utilized by a physician to announce his specialty.

"6. The Bureau regards this entire practice as unethical and as being distinctly in bad taste. Indeed the Bureau feels that it is not only bad taste but bad science."

4. *Commercialization Advocated in American Druggist Magazine.* The attention of the Bureau was called to an article on "The Common Cold" which appeared in the "American Druggist" magazine. Due to the frank commercialization of this article and the recommendations contained therein that drug clerks diagnose and prescribe for common colds, the Bureau disapproved this article in no uncertain terms. The matter was referred to the State Board of Medical Registration and Examination as it suggested the treatment and diagnosis of disease by drug clerks who, of course, do not have a license to practice medicine and hence the article openly violated the medical practice act of this state. An editorial in regard to this article appeared in the State JOURNAL and was followed by comment in *The Journal of the American Medical Association*.

5. *Rebates.* The Bureau of Publicity requested information concerning action that had been taken by the American Medical Association in regard to rebates from optical companies and manufacturers of surgical apparatus. A letter was received from the American Medical Association which stated:

"Away back in 1924 the Judicial Council was asked for an official expression concerning the practice of physicians dispensing eye glasses who sent prescriptions to manufacturers or wholesalers and charged their patients retail prices on delivery of the glasses, the physicians retaining the difference between the wholesale and retail cost of the glasses, and the Council included in its official report to the House of Delegates a recommendation to the effect that this matter be referred to the Section on Ophthalmology.

"The Section on Ophthalmology, at the annual session of the Association held in Chicago in 1924, adopted a resolution deprecating the selling of glasses by ophthalmologists to patients in communities where the services of reliable dispensing opticians are obtainable and specifically stating that the acceptance of commissions or considerations, directly or indirectly, from opticians or optical houses for the sale of glasses is absolutely contrary to all our standards of medical ethics and is just as reprehensible as the splitting of fees."

6. *Fee Splitting.* The Bureau recommends to every member of the State Association the article which was written by Matthew D. Mann, M.D., of Buffalo, and appeared in the Buffalo Medical Journal of April, 1910, entitled, "Dividing Professional Fees." Copies of this article have been sent to each member of the Bureau and to each member of the Executive Committee. The Executive Committee in its report this year states that sooner or later the profession must stop talking about fee splitting and must do something about it.

V. HISTORICAL WORK OF THE BUREAU

Resignation of Dr. L. G. Zervas and Appointment of New Historian. The Bureau of Publicity regrets that during the year Dr. L. G. Zervas who served as historian for the Association in past years resigned. Doctor Zervas has left this country and is now living in England. Although it was for too short a period, his work as historian for the Association was of great value. He has been succeeded by Dr. J. B. Maple of Sullivan as historian, who, through long years of interest in medical history and the publication of a book on the medical history of the Sullivan County Medical Society, is fitted well to carry on this most important duty for the State Medical Association.

Research in Medical Education. The Bureau has suggested that the historian undertake a program of research in medical education in Indiana. Such a study might cover the history of medical education in Indiana in general showing the gradual development of pre-medical training and the necessity of having a cultural background of broad general education before professional instruction is undertaken. It has been estimated that in the past there have been some 23 or 24 medical schools in the state. The Bureau suggests that the historian trace the development of these schools and their influence on the profession and the public. Coincident with this work should be the tracing of the development of medical societies throughout the state and the influence of medical laws, starting with the original law governing medical practice which was passed by the legislature in 1816.

VI. COOPERATION OF THE BUREAU WITH WELFARE AND LAY GROUPS

1. *Bureau of Maternal and Child Health.* During the year the Bureau of Publicity cooperated with the Bureau of Maternal and Child Health of the Indiana State Board of Health in many respects. The Bureau continued to assist the various county medical societies whenever called upon in formulating their scientific programs.

Cooperating with the Bureau of Maternal and Child Health the Bureau of Publicity approved the following bulletin which was sent to the presidents and secretaries of the county medical societies by the Bureau of Maternal and Child Health:

"Subject:

SCIENTIFIC MEDICAL PROGRAMS AND MOTION PICTURES FOR COUNTY MEDICAL SOCIETIES

"Your attention is again called to the fact that speakers and medical programs are available to all county medical societies. These programs are made possible through the cooperation of the Bureau of Publicity of the Indiana State Medical Association, and the Bureau of Maternal and Child Health of the Indiana State Board of Health.

"These Bureaus are anxious to be of service to county medical societies in assisting them to plan their programs for the coming year. Requests for scientific programs can be sent to either of the above named Bureaus. It is urged that requests be sent in far enough in advance of the date of the program, so that no conflict in programs will occur."

2. *National Social Hygiene Campaign.* A drive for funds sponsored by the National Social Hygiene Association was put on in Indiana, receiving its momentum from the campaign sponsored by the United States Public Health Service and the American Medical Association against syphilis. The National Social Hygiene representative was in contact with the members of the Bureau of Publicity and the Bureau made every attempt to keep this campaign in the correct lines. Frankly, the Bureau felt that in Indiana the work was being well done by the state committee and the committees in the various county medical societies. In fact, it was so well done that Surgeon General Thomas Parran himself said in public that Indiana was a leader in this campaign.

3. *Cooperation of the Bureau with the American Legion in regard to Venereal Disease Control Campaign.* During the year the Bureau of Publicity cooperated with the Indiana Department of the American Legion in the preparation of the following resolution concerning the venereal disease control campaign. This resolution was adopted at the state meeting of the Legion in 1937:

"WHEREAS, the present statutes are inadequate for the protection of the public in controlling the spread of venereal disease, and

"WHEREAS, physicians, public health officials and many civic organizations under the direction of the United States Public Health Service are promoting a campaign to eradicate syphilis from the United States, and

"WHEREAS, congenital syphilis—that is, syphilis inherited in the new born from the parents—is one of the most tragic results of the disease,

"THEREFORE, Be It Resolved, that the Department of Indiana American Legion sponsor the passage of a law at the next session of the Indiana General Assembly, making it mandatory that Wassermann and any other necessary blood tests be given, and the findings must be satisfactory before a marriage license may be obtained."

VII. RECOGNITION AND RECOMMENDATIONS CONCERNING WOMAN'S AUXILIARY

Several conferences were held during the year with the members of the Woman's Auxiliary to the Indiana State Medical Association with the Bureau acting in its capacity as advisory committee upon behalf of the State Association to the Auxiliary. During the year the Bureau has made a study of the activities of the Woman's Auxiliary and the Bureau is more and more convinced that the Auxiliary has a most important place not only as a social organization but also as a most important instrument of public relationship between the profession and the people of the State. The Bureau recommends highly that the State Association take action recognizing the splendid work of the Woman's Auxiliary and it asks each local county medical society to study the field of action that might be covered by a local auxiliary and encourage the formation of such an auxiliary. In line with this thought the Bureau suggests that a resolution to this end be prepared and presented by some delegate to the House of Delegates.

The president of the Woman's Auxiliary sub-

mitted in writing the following statement as to the purposes and program of the Auxiliary:

"In reply to your letter of the 23rd inst. as to the scope of the work of the Auxiliary and what I desire to be included in the official endorsement from the Bureau, I have this to say. Of the ten already organized units in the state, all are doing or want to do philanthropic work of some sort. Some units are working for hospitals, sewing and making supplies, buying hospital equipment, etc. One unit has a student loan fund for the use of physicians' children needing financial help to complete their medical education. Three units have placed Hygeia in schools and hospitals. Another maintains a circulating library in its local hospital and has recently sponsored and organized a hospital guild. Another unit has availed itself of the services of a local radio station for broadcasting programs prepared by local physicians, while another unit assisted in organizing its district for the national organization for the control of cancer. Practically all the units have presented health and educational programs.

"I should like sometime to see:

1. The organization of a Woman's Auxiliary in each county, where at all possible.
2. Every Auxiliary member become a club woman—
 - (a) belong at least to one club other than the Auxiliary;
 - (b) attend meetings regularly;
 - (c) place speakers on health programs wherever possible.
3. Every Auxiliary member inform herself on the subject of state medicine.
4. The Woman's Auxiliary assist the medical society in its program of public health education—
 - (a) by requesting radio stations to carry the American Medical Association program;
 - (b) by developing interest in social hygiene education, cancer, tuberculosis, syphilis, etc.

"My desire for the further organization of the State Auxiliary is not to rush in and at once organize each county but rather to be allowed to present the work of the Auxiliary before each county medical society so that the physicians may know of the work that is being done by the Auxiliary. As it is now, our Auxiliary organizing work goes in a vicious circle. We must have an invitation from the physicians of any county to organize an Auxiliary. It is surprising how few physicians throughout the state know that there is such an organization as a Woman's Auxiliary. We cannot ask for an invitation to organize a county and we are not asked in most cases to organize the Auxiliary because the physicians are uninformed concerning the work of the Auxiliary. As I stated in a previous letter, we feel that official recognition would give us tremendous impetus."

VIII. AVENUES OF PUBLICITY USED BY BUREAU

1. *Speaking Engagements before Lay and Medical Groups.* Although the county societies more and more are planning their programs for the entire year, whenever special emergencies arise they call upon the Bureau of Publicity and the Bureau is glad to cooperate in attempting to supply speakers. During the past year, speakers have been supplied by the Bureau for the following meetings:

1937

August 4—Tri-County Medical Society, Muscatatuck State Park.

August 26—Grant County Medical Society, Marion.

September 16—Second District Medical Society, Linton.

September 22—Joint meeting of Grant County

Medical Society, Grant County Bar Association, and Grant County Dental Society, Marion.

November 16—Twelfth District Medical Society, Fort Wayne.

November 17—Parke-Vermillion County Medical Society, Clinton.

December 16—Indiana Township Trustees Association, Indianapolis.

1938

January 9—University Park Christian Church, Indianapolis.

January 12—Decatur County Medical Society, Greensburg.

January 19—Parke-Vermillion County Medical Society, Clinton.

February 1—Clay County Medical Society, Brazil.

February 8—DeKalb County Medical Society and DeKalb County Lions' Club, Garrett.

February 16—Parke-Vermillion County Medical Society, Clinton.

March 8—Tippecanoe County Medical Society and Parent-Teacher Association, Lafayette.

March 15—Hancock County Medical Society, Greenfield.

March 16—Parke-Vermillion County Medical Society, Clinton.

March 16—Decatur County Medical Society, Greensburg.

March 17—Montgomery County Medical Society, Crawfordsville.

March 21—Greensburg Rotary Club, Greensburg.

April 7—Fountain-Warren County Medical Society, Kingman.

April 20—Parke-Vermillion County Medical Society, Clinton.

August 3—Rotary Club, Newcastle.

August 10—Kiwanis Club, Richmond.

2. *Newspaper Releases.* During the year numerous articles of the Bureau were reprinted throughout the country. One of the most widely disseminated articles was that entitled, "Too Much Fuss about Blood Transfusions" which was reprinted by "Science Service" and sent to various newspapers throughout the country.

The following articles were released for publication since the last report of the Bureau:

Indiana Proposes to Dispose of Syphilis.

Infantile Paralysis.

State Fair Health Exhibit.

Annual Session of Indiana State Medical Association at French Lick (8 releases).

Hoosier Hunting Day Hints.

Protecting the Public.

Diphtheria Record Threatened.

Smog Sickness.

Smallpox Curve Goes Up.

A Merry Day After Christmas.

Blood Transfusions.

Stamp Out Syphilis.

Secretaries' Conference.

1938—A Measles Year.

Prevent Pneumonia This Month.

Why Take a Chance with Cancer?

Laughter—The Real Spring Tonic.

May Day—Child Health Day.

Postgraduate Course.

The "Indiana Plan."

These releases, totaling 558 at each mailing, were distributed as follows:

1. 150 to the president of the White Cross Guild of the Indiana Methodist Hospital, for distribution to members of the Guild.

2. 50 to the director of the Division of Public Health Nursing of the Indiana State Board of Health.

3. 50 to the state director of the Department of Health of the Woman's Christian Temperance Union of Indiana.

4. Each councilor and the secretary of each county medical society gets a copy of each article.

5. Editors of 200 newspapers and magazines of the state receive copies. Besides these, the articles often are carried in the Hoosier Health Herald of the Indiana Tuberculosis Association, and several other health publications of the state, including twelve religious, fraternal, and farm journals.

3. *Radio Talks.* The following radio talks have been given each week through the year on Saturday night over station WFBM, of Indianapolis:

Indiana Proposes to Dispose of Syphilis.

Public Health Enemy No. 1.

Eye Strain.

Infantile Paralysis.

State Fair Health Exhibit.

Eye Examinations.

Lye As a Poison.

Competitive Athletics.

Ventilation.

Sport for Health's Sake.

Hoosier Hunting Day Hints.

Protecting the Public.

When Winter Comes.

Thanksgiving Eating.

Diphtheria Record Threatened.

Smog Sickness.

Smallpox Curve Goes Up.

A Merry Day After Christmas.

Blood Transfusions.

If You Have a Cold—Stop.

Debunking the Vitamins.

Stamp Out Syphilis.

Lincoln History and Scientific Medicine.

Your Years and Your Age.

1938—A Measles Year.

Prevent Pneumonia This Month.

Why Take a Chance with Cancer?

Laughter—The Real Spring Tonic.

Spring Exercise.

Everyone's Fight (Cancer release).

May Day—Child Health Day.

Spring Tonics and Spring Fever.

Strenuous Week Ends.

Vacations and Typhoid.

IX. FINANCIAL STATEMENT OF THE BUREAU

The expenditures of the Bureau from August 1, 1937, to August 1, 1938, follow:

Clippings	\$104.20
Postage	89.51
Stationery and mimeograph supplies.....	49.15
Printing	3.75
A.M.A. exhibit, the "Indiana plan"	639.36
Miscellaneous	13.67

Total expense\$899.64

X. TRIBUTE TO DOCTOR E. D. CLARK

During the year the Indiana State Medical Association lost one of its outstanding members, Doctor E. D. Clark, the president of the Association in 1937 and from 1932 until his selection as president-elect of the State Association in 1936, a member of the Bureau of Publicity. The Bureau prepared the following tribute to Doctor Clark:

"As president of the Indiana State Medical Association during the critical year just closed, Doctor Edmund Dougan Clark came to that office well prepared through long years of training and experience both as a physician and a soldier to assume medical leadership with decision, courage, judgment, and foresight.

"Medicine was rooted deeply within him. Not only were his father and grandfather physicians, but many of his host of relatives, all the way from the Idaho Rockies to Rye, New York, were doctors. In fact, numerous 'Dr. Clarks,' all cousins of our own Doctor Clark in one degree or another, have practiced in both the old and the new world, in all cases with honor and in many cases with more than local distinction. His uncle Dougan Clark, who practiced in Richmond during the early seventies, was for several years professor of materia medica and therapeutics at the old Indiana Medical College. He traveled from Richmond each week and spent the day in Indianapolis conducting classes. He was a man of profound general as well as medical knowledge. One of his cousins, Charles Clark, who graduated in 1874, from the Indiana Medical College, afterwards practiced in London, England. Another distinguished relative was prominent as a surgeon in Philadelphia.

"Although always interested in one way or another in medical organization affairs, it was not until 1932 when Doctor Clark became a member of the Bureau of Publicity of the Indiana State Medical Association that he gave a great amount of his time to state medical organization work. From that year until the completion of his term as president only a few weeks ago, state medical affairs became his first interest outside of his practice and his home. His services as a member of the Bureau of Publicity were most valuable. His sound judgment in dealing with the many complicated problems of public and professional relationships, his straight conception of ethical matters, his ability to render outspoken criticism without personal antagonism, made him a most

valuable member of the Bureau and enabled him to assume the duties as president of the Association with a clear insight to all medical organization problems. In facing these problems Doctor Clark was guided by a single principle—

'Because right is right to follow right
were wisdom in the scorn of consequence,'
for with him, right was right, wrong was wrong,
and there was no middle path."

Respectfully submitted,

WILLIAM N. WISHARD, M.D.,
Chairman,

F. M. GASTINEAU, M.D.,
C. F. THOMPSON, M.D.

REPORT OF COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

House of Delegates,

Indiana State Medical Association:

Gentlemen:

There have been very few requests during the past year to the Committee on Civic and Industrial Relations for assistance. This year, however, has witnessed requests from not only members of our Association, but also from an insurance company relative to charges made by doctors. We are happy to report that the difficulties were ironed out and the doctor received a check for the amount asked. The controversy arose over the amount of the bill and, as we have repeatedly maintained, the fault lay in the failure of the doctor specifically to set out what he had done. In other words, the insurance company did not have knowledge of the type of services rendered. Such controversies need not arise if the doctors will only set out in detail, not only the nature and extent of the injuries, but also itemize in full the services rendered.

At the present time there is a committee of the Indiana State Legislature investigating the question of state compensation. What their report will be is not known at this time. However, it would behoove the doctors of Indiana to give this question much thought before they personally arrive at a conclusion.

Respectfully submitted,

A. F. KNOEFEL, M.D., *Chairman.*
F. J. McMICHAEL, M.D.,
F. B. WISHARD, M.D.

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

(No report received)

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

House of Delegates,

Indiana State Medical Association

Gentlemen:

Throughout the year your Public Relations Committee has been ready to take up any task which might be assigned to it by the Executive Committee, the Council, or the House of Delegates of the Indiana State Medical Association.

By tradition, this committee was formed to function in a very specific capacity. We stand ready to serve the official groups of this organization whenever we are called upon to do so.

Respectfully submitted,

W. P. GARSHWILER, M.D., *Chairman,*

W. E. JENKINSON, M.D.,

HARVEY K. STORK, M.D.,

CARL HABICH, M.D.,

M. R. LOHMAN, M.D.,

S. T. MILLER, M.D.

REPORT OF THE COMMITTEE ON NECROLOGY AND THE HISTORIAN

House of Delegates,

Indiana State Medical Association:

Gentlemen:

NECROLOGY

The past year has witnessed the death of one hundred and five physicians in this state, which is eleven less than in '37 but sixteen more than in '36. Many of these men could ill be spared by their communities and some, like Ed Clark, Frank Jett, and W. H. Kennedy, will be sadly missed in the councils of our society.

The youngest physician to die this year was Robert W. Bobe, of Monroe City, who was twenty-eight years old. Dr. Thomas W. Curry, Southport, and Dr. Thomas S. Hitt, Indianapolis, tied for being the oldest, each reaching ninety-one years. One physician died in the twenties, two in the thirties, three in the forties, twelve in the fifties, thirty-four in the sixties, twenty-eight in the seventies, twenty-one in the eighties and four in the nineties. The average attained age was sixty-two years and eight months. The years sixty-one, sixty-eight and seventy had the most deaths.

There was only one woman physician and one colored physician in the group. Dr. Alice E. Twichell, Indianapolis, was the sole woman physician, and Dr. John H. Fears, South Bend, was the sole colored physician.

There were thirteen deaths in April, twelve in January and August, ten in May and July, eight in February, June and October, seven in March and November, six in December and four in September.

Nineteen graduated from the Medical College of Indiana; six each from the Medical College

of Ohio and University of Louisville Medical Department; four each from the Hospital College of Medicine, Hahnemann Medical College and Hospital, Eclectic Medical College; three each from Indiana University School of Medicine, Rush, Bellevue Hospital Medical College, Physio-Medical College of Indiana, Western Reserve, Fort Wayne College of Medicine, Jefferson Medical College, Central College of Physicians and Surgeons, and Louisville Medical College; two each from Indiana Medical College, Washington University, Curtis Physio Medical School, Northwestern University, Cincinnati College of Medicine and Surgery, and Kentucky University Medical Department; one each from Chicago Medical College, College of Physicians and Surgeons of Baltimore, Kentucky School of Medicine, University of Pennsylvania, University of Vermont College of Medicine, Detroit College of Medicine, Barnes Medical College, Wayne University, Ohio Medical University, Chicago College of Medicine and Surgery, Southwestern Homeopathic Medical College and Hospital, Chicago Homeopathic Medical College, Homeopathic Medical College of Missouri, Miami Medical College, Eclectic Medical College of Indiana, Jefferson School of Medicine, Missouri Medical College, New York Homeopathic Medical College and Hospital, Starling Medical College, Queens, American Medical College, Trinity; and one was licensed by State Law of 1897.

Fifty-seven were members of their County and State Society, six were honorary members of these two societies, and forty-two were non-members. Thirty-three were members of the American Medical Association and twenty-six were Fellows of the American Medical Association. Four were Fellows of the American College of Surgeons. One was a Civil War veteran and thirteen were World War veterans. One was a past President of the State Medical Association, one was President of the Indiana State Board of Medical Registration and Examination. One had been a member of the House of Delegates of the American Medical Association. One was a past Chairman of the Council, three others had been members of the Council, one a past President of the Executive Committee, ten had been presidents of their County Society, and one was president at the time of death. Twenty-five were retired. Twenty-three had appointments on hospital staffs. Fifteen had served as County and City Health Officers, and seven had been County Coroners. One had been a County Clerk, one a City Mayor, two had been State Senators, three had served on Boards of Education and one was a Medical Director of a Life Insurance Company. One was owner of a hospital, one was president of a hospital company, one was president of a Clinic, one had been superintendent of the Indianapolis City Hospital and one had served eleven years as Superintendent of an Indiana State Sanatorium. One was a Professor of Surgery, one an Assistant Professor of Radiology and one was an Associate

Professor of Dermatology and Syphilology. In the specialties five were listed O.A.L.R., one Urology, one Dermatology and Syphilis, eight as Surgeons, one as Industrial Surgeon and one Radiologist.

Two of these physicians dropped dead while at work. One is recorded as a bank president and one a bank director. Only one in the entire list is scheduled frankly as wealthy.

Causes of death run as follows: Heart disease (form not specified) 14; coronary thrombosis, 1; coronary occlusion, 5; angina pectoris, 1; endocarditis, 1; chronic valvular disease, 1; acute myocarditis, 1; chronic myocarditis, 13; cardio-renal vascular disease, 6; a total of 43 in this group.

Hypertension, 4; arteriosclerosis, 9; cerebral hemorrhage, 10; cerebral thrombosis, 1; cerebral embolism, 1; a total of 25 in this group.

Pneumonia, 7; bronchiectasis, 1; pulmonary fibrosis, 1; carcinoma of rectum, 1; of prostate, 2; of uterus, 1; pancreas, 1; and one case not specified; nephritis, 2; uremia, 2; kidney insufficiency, 1; hemorrhage of the bladder, polycystic disease of the kidney, 1; diabetes mellitus, 1; and prostatitis, 1.

Gastric hemorrhage, 1; cirrhosis of the liver, 1; hemorrhage following gall bladder operation, 1; rupture of gall bladder, 1; cholelithiasis, 1; acute cholecystitis, 1; intestinal hemorrhage, 1; peritonitis, 1; and esophageal diverticulum, 1.

Pernicious anemia, 1; erysipelas, 1; streptococcic sore throat, 1; Hodgkins' disease, 1; myeloid leukemia, 1; thrombosis and gangrene, 1; paralysis agitans, 2; chronic myelitis, 1; and senility, 1.

Seven were killed in auto wrecks, 1 killed by train, 1 drowned, and 4 were killed by falls.

Heart conditions again are far in the lead, followed by the various degenerative processes. The average age at death is a bit high for this group.

HISTORIAN'S REPORT

As State Historian I have endeavored to secure a history of each separate county society together with as much of the general medical history of each county as can be gathered. A number of county societies have responded with fine histories of their societies, but many have made no effort toward this end. We hope that during the next year we can secure much additional information.

A compilation of all acts, laws, and court decisions concerning physicians is also being done. A third effort is being directed toward the recording of the history of all medical schools that have existed in Indiana.

We earnestly ask all those county secretaries who have not supplied us with the story of their society to do so soon. If they cannot do it themselves they should appoint some member to do it. We also ask that every physician who has records

or knowledge of historical interest write me about these things.

Much that should be recorded is rapidly being lost and we hope to save as much as possible.

Respectfully submitted,

JAMES B. MAPLE, M.D.

REPORT OF THE COMMITTEE ON SECRETARIES' CONFERENCE

House of Delegates,

Indiana State Medical Association:

Gentlemen:

The annual Secretaries' Conference was held at the American Medical Association building in Chicago, Illinois, on Saturday, February 12, 1938, in conjunction with the meeting of the Northwest Regional Conference for which Indiana was the host. About fifty doctors from Indiana attended the Secretaries' Conference.

After an inspection in the morning of the American Medical Association building and a lunch served at the Medina Club, the afternoon was devoted to the regular program of the Secretaries' Conference. Dr. Olin West, Dr. Morris Fishbein, Dr. Leland, Dr. Woodward, Dr. Hayden, all of the American Medical Association, and Dr. Meyerding of Minnesota and Dr. Leathers, dean of Vanderbilt University Medical School, all made talks in addition to the regular program. The Indiana plan on Preventive Medicine was well received at the Secretaries' Conference.

Dr. A. M. Mitchell was re-elected chairman for the 1939 conference.

On Sunday, February 13, 1938, those in attendance enjoyed a very delightful and informing program presented at the meeting of the Northwest Regional Conference at the Palmer House.

Dr. H. M. Baker, president of the Indiana State Medical Association, and Dr. Frank Gastineau very ably presented the twelve spoke wheel on preventive medicine as outlined in the Indiana State Medical JOURNAL.

On Tuesday evening, during the post graduate session, the Secretaries were served a delightful dinner at the Riley Hospital, as the guests of the Indiana University School of Medicine. Dr. Stefansson, the Arctic explorer, made a very delightful talk on the practice of medicine in the Arctic, after which the secretaries entered into a very enlightening discussion of the survey to be conducted by the county medical societies

Respectfully submitted,

A. M. MITCHELL, M.D., *Chairman.*

R. L. HANE, M.D.

P. E. YUNKER, M.D.

JOHN PALM, M.D.

J. F. RILEY, M.D.

DURWARD PARIS, M.D.

REPORT OF THE COMMITTEE ON GRADUATE EDUCATION

House of Delegates,

Indiana State Medical Association.

Gentlemen:

The annual postgraduate course of the Indiana State Medical Association, carried out in cooperation with the Indiana University School of Medicine, is becoming the popularly accepted answer, in the Middle West, to the problem of what constitutes adequate graduation review study.

During the past year a number of the neighboring states have instituted five-day general review courses, patterned after the successful ones carried out here for the past five years.

The geographic and numerical representation of the doctors of the state showed a satisfactory increase over all previous years. The total attendance at each one of the sessions was greatly increased over that of previous years, indicating that a majority of the doctors enrolled remained throughout a greater portion of the five-day course.

This year, at the request of the War Department, and with the approval of the Executive Committee of the State Association, the course was used for graduate training of medical reserve officers in this district. The War Department, through the surgeon general's office, has expressed to the committee its appreciation of the cooperation of the State Medical Association and praises the course highly.

The problem of extending graduate education to other cities of the state has been studied with the president of the society, and with members of the Executive Committee of the state society. As a result of these studies a two-day course will be given at French Lick on September 7th and 8th of this year.

The interest shown in this two-day type of course by the medical men in the district where this will be carried out will serve as an indication to the committee of the further desirability of efforts along this line.

A summary of graduate medical education in Indiana, as given in the progress report of the Field Study on Graduate Education by the American Medical Association, in the opinion of the committee, demonstrates that the Indiana State Medical Association is awake to the importance of graduate medical education and is taking an active part in the national program.

Respectfully submitted,

L. A. ENSMINGER, M.D., Chairman,
C. J. CLARK, M.D.,
JOHN OWEN, M.D.,
J. K. BERMAN, M.D.,
L. H. SEGAR, M.D.,
W. N. WISHARD, JR., M.D.

COMMITTEE ON VETERANS' AFFAIRS

House of Delegates,

Indiana State Medical Association

Gentlemen:

The report of the committee on Veteran's Hospitalization consists almost wholly in a resolution which will be presented to the House of Delegates at the state convention. The resolution has been prepared by Dr. Daubenheyer who is a member of this committee. This resolution has already been presented and adopted at some of the District Medical Society meetings. It is very similar to the plan which was put forward three years ago, by Dr. Shoulders, of Tennessee, and which was known as the Shoulders' plan. This plan was adopted by the Indiana Medical Society and also by the state convention of the American Legion at Gary. We were, however, unable to carry the movement further than the State of Indiana. It is to be hoped that this year we may be able to make further progress.

It is certain that the present plan of Veterans' Hospitals and their enlargement is not the best plan either for the veterans themselves or the medical profession.

Respectfully submitted,

C. C. BASSETT, M.D., *Chairman*,
M. F. DAUBENHEYER, M.D.,
C. C. CRAMPTON, M.D.,
C. C. TUCKER, M.D.,
JAMES A. WORK, M.D.

REPORT OF THE COMMITTEE ON STUDY OF HEALTH INSURANCE

House of Delegates,

Indiana State Medical Association:

Gentlemen:

The Committee notes with real dismay that its former expressed apprehensions of increase of activities in favor of the adoption of state medicine are being borne out. The proponents have again openly returned to demands for a nation-wide setup and have definitely stated that the next Congress will be asked to make a beginning. So far, no clear cut scheme of operation has been publicly proposed. The proponents have been greatly helped by the attitude of a group of men who have medical degrees but who are quite unfamiliar, by personal knowledge, with the needs of the public in medical matters. But the public cannot and does not appreciate that these men are in no manner representative of the great body of medical practitioners.

We, therefore, face a contest against not only sentimental theorists and social uplifters but a group from our own profession.

Believing that the profession yet wields a great influence, the Committee has steadily increased the number of men influential in their own localities who have agreed to carry on, with their own

clientele, personal discussions of the inherent and certain future disadvantages of state controlled medicine, until now more than two hundred men have agreed to discuss the matter at each available opportunity. This list is being increased every week. The committee solicits the active assistance of every physician and will be pleased to have volunteer offers to join in this method of presentation of the matter before it becomes a subject of general public discussion. The Committee will gladly supply information on request.

The various schemes of state medicine among our foreign colleagues have become so firmly and widely established that the only apparent activities have been fruitless endeavors to secure additions to the continuing incredibly insufficient fee schedules.

In England, the scheme is rapidly developing its ultimate end of complete coverage of the entire population. Like every other nation adopting the scheme, England began with the indigent and the near indigent. Now it is expected that twenty-six million persons are to be covered, and these, in a gross population of forty millions embrace practically every adult.

The current plans will provide for every conceivable medical need and function. It clearly demonstrates that once a beginning is made, the inevitable end is autocratic official control of every phase of a physician's relations to his patients. The lure of compensation for service to the indigent is invariably the preliminary proposal.

The Committee suggests that a possible line of defense would be a clear cut, well-publicized, official declaration by all the bodies of organized medicine, that the profession continue to assume (as it always quietly has done) the care of the indigent sick gratuitously and it declines and would resent any attempt by government to interfere with that privilege and duty, inherently belonging to the profession. And by a genuine effort to maintain that position, the principal argument of opponents would be destroyed and more support received from those concerned with the mounting tax requirements.

Respectfully submitted,
W. U. KENNEDY, M.D., *Chairman.*
J. M. FLEMING, M.D.
L. T. RAWLES, M.D.
C. E. GILLESPIE, M.D.
R. H. BEESON, M.D.
J. H. WEINSTEIN, M.D.

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

House of Delegates,
Indiana State Medical Association:

Gentlemen:

On account of unusual interest which had been aroused by the change in basketball rules, a basketball questionnaire was sent to the medical

directors of those high schools which were winners in the sixty-four sectional tournaments. The questionnaire sought to elicit something definite upon which opinions could be based and conclusions drawn. Following is a copy of the questionnaire:

BASKETBALL QUESTIONNAIRE

(Addressed to medical directors of the 64 sectional winners.)

The Committee on High School Athletics of the Indiana State Medical Association would like to have your opinion as the medical director of your team in regard to the effect which basketball is having on the health of the players under your supervision. Your answers to the following questions may enable the committee to gain opinions upon which to base some conclusion:

(1) Have you seen any definite, specific ill effects in any contestant under your supervision as the result of basketball play this year? Please give details.

(2) What changes do you recommend or what suggestions do you have to offer in regard to the game?

General Comments:

Signed _____
School _____

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

Forty-seven replies were received, some of them from medical directors and some from coaches and principals of these schools. Twenty-nine of the replies gave an unqualified "no" as an answer to question No. 1. In spite of the fact that specific information was requested, several reports were indefinite and evasive. Four reported that the team was run down, exhausted, and worn out. Three reported that the condition of the boys was improved over previous years. One reported a back injury, which is, of course, not a result of the rules in effect this year any more than those of previous years. One reported that a boy "possibly had over-taxed his heart musculature." Most of those who reported felt that the game as played in the early part of the season was more strenuous than later on. Many of these observers felt that officials succeeded in slowing the game down later in the season.

An outstanding report was received from Merrill S. Davis, M.D., of Marion, Indiana, and his letter is printed in full because we know of no sounder conclusions than those drawn by Doctor Davis. Following is the letter:

"I have checked all the teams playing in Marion, Indiana, for years. Especially did I check our championship team, members of which I followed through their tournament play and have been in touch with most of them since that time, noticing no bad results. The members of this championship team went to college and made a name for themselves—Stretch Murphy was Captain at Purdue, Bob Chapman of University of Michigan, etc. When the State Medical Meeting was at Marion I agitated the physical education of all high school boys in athletics.

"It is compulsory that all in charge of such programs be highly qualified, pass tests and ex-

aminations and be graduated from colleges and universities. These same men are in charge of interschool athletic activities and are compelled by law to hold a physical education license. If any of these men are improperly fitted for their places it is the fault of the state license division or the school city that employs such individuals.

"All boys taking part in any high school athletic program must be given a thorough physical examination before the school is allowed to practice the individual. If the examination is not complete and is done in a haphazard way, then the school should not be to blame for the playing of the boy. There possibly have been high school athletic men, who have played boys who were not physically fit and there possibly have been physicians who have been lenient toward the examinations.

"Most boys love basketball and football and if they are not allowed to play it in our high schools, this same boy will go to the Y. M. C. A., the community halls, alleys, barns, and etc., to do their playing. There, they have no qualifications and the lad can play hours at a time, he gets no shower, no rub down, no care of injury. He satisfies his wants without adult supervision. This is a far worse condition than the one we are attempting to investigate and herein lies the source of much of the evil for the youngster. Give this same boy organized and supervised play in the schools and there will be no need of the sandlot variety.

"Of course if there is any physical education man who does not build his men up to the place of tournament play, if there is any coach, who plays boys who are unfit physically, it is the place of the community to rid themselves of such an individual. All coaches should and most of them do watch the physical condition of their boys. Check their weights, suggest the right kinds of foods, compel proper sleeping hours, and demand good medical care whenever needed. These things are health conditions that many parents will pass up in the raising of the child but they are compulsory items in all athletic programs.

"Checking on individuals not in shape, we would consider the official. Many men handling our high school basketball certainly are inefficient, physically and mentally. Because of this condition, hardships are worked on boys, coaches and communities. These officials work once a week and expect to go as fast as the player, who practices once a day. These men eat as they wish and compete against boys, who are on healthful diets. Smoking and drinking are not prohibitive for the official, while the player is not allowed either because he couldn't go the thirty-two minutes if he were allowed these things. Many officials will drive 100 or 200 miles to work at a game and expect to be in tip-top shape. We put our game under such a condition. The only requirement for an official is to obtain the signature of any two principals plus the fee of a dollar. Age seemingly is no handicap. I speak as one of experi-

ence having played football with I.U. in 1910, 1911 and 1912—being captain of basketball in 1912. Refereed for several years after obtaining my A.B. I believe the officiating belongs to the younger group of men still in good physical condition who should be properly approved by regular board of physicians as well as having to meet similar qualifications demanded of coaches, and physical directors. The officials should fall in line with individuals being checked for the game. After each goal an official should touch the ball before putting it into play."

The committee submits the above report with the hope that there will be a more general appreciation of the benefits of controlled athletics. We also feel that it is only fair to call attention to the sincere effort expended by most coaches, medical examiners, and school authorities to conduct competitive athletics on the highest possible plane.

Respectfully submitted,

WENDELL D. LITTLE, M.D., *Chairman.*

H. C. WADSWORTH, M.D.

G. A. THOMAS, M.D.

J. E. P. HOLLAND, M.D.

J. E. McMEEL, M.D.

COMMITTEE ON STATE FAIR

House of Delegates,

Indiana State Medical Association

Gentlemen:

At the Indiana State Fair, the week of September 4-10, 1937, the Indiana State Medical Association in collaboration with the American Medical Association, demonstrated pictures of the effects of burns, and the means of preventing burns, and a series of illuminated pictures showing how eye injuries are caused and how they can be prevented. A series of posters on nutrition were exhibited, emphasizing the need for adequate diets in vitamins to maintain health.

As in former years, a test was made for the people. This year the tests were vision tests, and were chiefly for children of school age, although adults were tested, too. The instruments used for checking the eyes were telebinocular stereoscopes, with which the children could be checked in four to five minutes, and told whether they should have a more thorough eye examination at the hands of an oculist. The test included a check for mono or binocular vision, fusion of images properly at far and near distances, visual acuity, vertical imbalance, lateral imbalance, stereopsis, and astigmatism. During the Fair week, 453 people had their eyes tested, most of them being children.

With the instruments used, it was found that the great majority of children of school age require aid for their eyes. Their need for help varied considerably. Some were greatly handicapped, unknown to their parents, and others had

only slightly impaired vision. All of those individuals who failed to pass the test properly were given slips on which were checked those tests in which they passed or failed or were doubtful. These individuals were advised to have a more thorough eye examination by a competent physician or oculist.

The interest manifested in the 1937 exhibit equalled that of former years, and many requests for pamphlets on diet and nutrition were received. The instruments used for checking vision were in constant use as long as they were set up.

The tests were given by Mr. Ewing, and by Ray Miller and Gus Peters, medical students.

Respectfully submitted,

R. A. SAGE, M.D., *Chairman*,
J. E. FERRELL, M.D.,
MARTHA C. SOUTER, M.D.,
PAUL BEARD, M.D.,
JOHN R. SWAN, M.D.,
IRVIN W. WILKENS, M.D.,
JOHN I. WALLER, M.D.

REPORT OF THE COMMITTEE ON MENTAL HEALTH

House of Delegates,

Indiana State Medical Association:

Gentlemen:

The Committee on Mental Health of the Indiana State Medical Association begs to make the following report of activities during the year 1937-1938.

No formal meetings have been held since October, 1937, at which time the Committee met at French Lick, during the annual meeting of the State Association. After the transaction of routine business, considerable time was spent in the discussions of various problems of interest to the committee. During the past year no matters of importance have been referred by the Executive Committee for investigation or recommendation.

The training of students, interns, and nurses in the Indiana University School of Medicine and other hospitals has progressed satisfactorily. Dr. F. F. Hutchins who has been head of the Department of Neuro-psychiatry, Indiana University School of Medicine, for a number of years, has retired, being succeeded by Dr. Max A. Bahr. There are no provisions for the prolonged treatment of psychiatric cases in the University Hospital group; however, there is an abundance of clinical material at the Central Hospital for the Insane and the psychopathic ward at the Indianapolis City Hospital. Out-patient neuro-psychiatric clinics are maintained at both the University and City Hospitals. Full time residents in neuro-psychiatry are on duty at the Indianapolis City Hospital and the Methodist Episcopal Hospital.

The State Insane Hospitals as well as the psychopathic ward at the Indianapolis City Hospital are still overcrowded and many patients are on the

waiting list. It is hoped that with the present building program this congestion will be relieved. In previous reports attention has been called to the fact that county hospitals and small private institutions should be prepared to care for acute mental cases pending their admittance to the state hospitals. It is noted that such facilities are now available in many of the smaller institutions.

Under date of April 8th, 1938, a letter was received from M. D. Steer, director of the speech clinic of Purdue University. Dr. Steer reports that all cases treated in this clinic are first subjected to careful physical and neurological examinations, there being close co-operation with the Lafayette Academy of Medicine and the Purdue Student Health Service.

During the past year the Indianapolis Society of Neurology and Psychiatry has been organized, the membership being made up of physicians whose major interests are in this type of practice. The work of this organization is largely research studies in various neurological and psychiatric problems.

In May, 1938, Dr. George C. Stevens of Manchester, N. H., reported for duty with the State Welfare Board under the Division of Inspection and Investigation with the title of Consultant in Medical Administration and Psychiatry. Dr. Stevens is a trained psychiatrist and well versed in institutional management. It is his desire in the further development of the State care of the mentally ill to co-operate in every way with the medical profession. He is in accord with recommendations already made by this committee to the effect that all public care of the mentally ill should be under direct medical supervision and extended to the indigent only.

This Committee is always at the service of the Executive Committee and ready to study and investigate any subject referred to it.

Respectfully submitted,

LARUE D. CARTER, M.D., *Chairman*.
MURRAY DEARMOND, M.D.
MAX A. BAHR, M.D.
JOHN H. HARE, M.D.
L. P. HARSHMAN, M.D.
C. L. WILLIAMS, M.D.
ROGERS SMITH, M.D.

REPORT OF COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS

House of Delegates,

Indiana State Medical Association:

Gentlemen:

At the invitation of Governor Townsend, the medical profession is now represented on the Governor's Committee on Traffic Safety.

Following the suggestion of President Baker, the chairman of the Committee on Prevention of Traffic Accidents of the Indiana State Medical

Association has been appointed a member of the Governor's Committee.

It is believed that this offers the best opportunity for the medical profession to make its point of view of value in the control of traffic hazards. It is recommended that the committee function as a liaison group between the medical profession and the public.

Respectfully submitted,
M. N. HADLEY, M.D., *Chairman*.
MARK M. PIPER, M.D.
J. R. PORTER, M.D.
C. F. OVERPECK, M.D.
C. S. BLACK, M.D.
G. V. CRING, M.D.

REPORT OF STATE BOARD OF HEALTH LIAISON COMMITTEE TO DEAL WITH SOCIAL SECURITY ACT

*House of Delegates,
Indiana State Medical Association:*

Gentlemen:

This committee has met at various times throughout the year in conference with the director of the Bureau of Maternal and Child Health. No moves of importance were made without full and free discussion with your committee.

There has been no complaint registered with your committee from the medical profession.

Activities of the Bureau are reported in THE JOURNAL by Dr. H. B. Mettel, chief.

The program of the Bureau of Maternal and Child Health appears to be the thing the people want.

Respectfully submitted,
E. O. ASHER, M.D., *Chairman*.
J. C. CARTER, M.D.
R. W. SHANKS, M.D.
ISADOR RAPHAEL, M.D.
WALTER C. McFADDEN, M.D.

REPORT OF SUBCOMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA

*House of Delegates,
Indiana State Medical Association.*

Gentlemen:

The activities of this committee to date have consisted in constructing a questionnaire for maternal and infant mortality in Indiana and sending said questionnaire to physicians attending deaths associated with childbirth and infants up to thirty days of age.

To date the response of the profession has been very encouraging. We have returns on 88 out of a total of 134 maternal deaths, and 643 out of a total of 863 infant deaths. This represents approximately 70% of the number who died.

Seven months, the duration of this study, is not a sufficiently long period of time to draw conclusions, hence the analysis has not yet been summarized; however, it seems as though sepsis, toxemia and hemorrhage will again be the outstanding causes of maternal deaths, and premature birth will account for decidedly the greater number of infant deaths. Insufficient prenatal care is the outstanding ultimate cause of these deaths. Physicians report time and again that the patient was not seen until seriously ill or in premature labor.

The facts thus far indicate that the public does not yet know that adequate prenatal care and cooperation with the doctor will prevent most cases of toxemia of pregnancy and most premature births. More publicity and arrangements to provide this care for all seem to be the immediate needs.

Better care of the premature infant would doubtless prevent many of these deaths. How to accomplish this end becomes quite a problem and will require careful deliberation.

We are convinced that much benefit will be derived from this study, and a more complete report with recommendations will be forthcoming at the end of the year.

We express our appreciation to the doctors of Indiana for their cooperation and beg further indulgence to promote this survey.

Respectfully submitted,
H. F. BECKMAN, M.D., *Chairman*
J. C. CARTER, M.D.
VERNE K. HARVEY, M.D.

REPORT OF THE LIAISON COMMITTEE WITH THE INDIANA CRIPPLED CHILDREN'S BUREAU

*House of Delegates,
Indiana State Medical Association:*

Gentlemen:

The report of The Liaison Committee as presented before the House of Delegates in its meeting of 1937 defined the activities proposed by the state department for the ensuing year as follows: (1) Case Finding, (2) Extension of Hospital Facilities, (3) Facilities for Diagnosis and Follow-up Services, and (4) Prevention of Crippling.

Under the head of case finding, it may be of interest to note that the reporting of congenital birth deformities has been effective since January 1st, 1938, and the department has received over 136 such reports from physicians throughout the state. The department has, at present, a very extensive file containing the names and addresses of crippled children, and information concerning the crippling. This information has been compiled as a result of surveys conducted, information received through local welfare departments and personnel of the state department. Blanks have been

distributed to some four thousand doctors in the State of Indiana and are also incorporated in the birth certificate books issued by the state board of health. The observance of the requirement to report congenital deformities should automatically operate to keep this file of dependable accuracy.

The extension of hospital facilities: The South Bend Hospital Center has functioned since November of 1937 in the treatment of crippled children in the northern area of the state. This center has been in operation in the care of crippled children since 1914, and has very complete facilities for physiotherapy, including therapeutic pool, gymnasium, and various modalities for physical therapy under trained therapists. The center also conducts a school for the crippled children. Doctors Robert Acker and Walter Baker, orthopedists to the Hospital Center, were approved to act as agents for the Department of Public Welfare. The fact that the South Bend Hospital Center had been in operation for many years made it possible for the state department to utilize these facilities and make them available immediately for the care of crippled children, under its supervision in the northern part of the state. The facilities at the James Whitcomb Riley Hospital have been added to. Medical social workers and secretarial assistants are attached to both hospital centers. The Cerebral Palsy Project at the Riley Hospital, instituted in May of 1937, now has approximately 350 patients under supervision. The staff of the project has been augmented and now consists of two physical therapists, two occupational therapists, and one speech therapist. The follow-up services in the field are of the greatest importance. The hospital centers cannot operate effectively, or utilize their facilities to the greatest advantage, unless adequate supervision of patients and necessary physical therapy are provided after discharge. A field physical therapist was added to the staff on August 1st, 1938, and will assist field nurses in furthering physical therapy procedures in the field. There are now approximately nine hundred crippled children under the supervision of the department.

Facilities for diagnosis and follow-up service: The Department has been especially careful that any efforts put forth to improve the facilities for diagnosis be along lines acceptable to the medical profession and consistent with its standards of practice. Orthopedic consultation service is offered at convenient times in the various districts of the state. The consultants designated for that service will be paid by the Department on an equitable fee basis. It is requested that all crippled children to be examined present a signed recommendation from the child's attending physician. In the event that a recommendation is not available, the name of the family physician will be obtained and recommendations of the orthopedic consultant will in every instance be forwarded to the attending physician. In order to further assure that this service

not be offered in communities where it is not acceptable to the medical profession, the consultation service will not be offered unless the county medical society to be served by such consultation service extends its invitation to the Department for this facility. It is hoped that the county medical societies will interest themselves to the extent of becoming familiar with the character of the service offered, the individuals to whom service is extended, and the manner in which that service may be helpful to the physician and his patient in caring for the crippled child. If there are valid objections to the service as offered it might be possible to make adjustments to an acceptable basis.

Under number four, in the field of prevention of crippling: During the fall of 1937 a mild epidemic of acute anterior poliomyelitis was prevalent in certain sections of the state. It was believed that a consultant service during such epidemics would be acceptable to the physicians having such patients. It has been recommended by the technical advisory committee that for the next fiscal year some provision be made for pediatricians and internists to be available as consultants in treatment directed to prevent crippling insofar as that is possible. The crippled children's division is co-operating with the Post-Graduate Committee of the Indiana State Medical Association in developing such material as may be helpful in the early diagnosis, prevention of crippling, and management of cases in which crippling has occurred.

The development of the work of the department of crippled children has of necessity progressed slowly: First, because of financial limitations; and, second, because the Department and its Director, and the Advisory and Liaison Committee have been very anxious that the crippled children activity should proceed only along sound lines. Plans for future activities will be directed to the greatest possible service to crippled children, for whom there are no other adequate provisions. These activities will be developed along lines acceptable to physicians, and not inconsistent with the best standards of medical practice.

Respectfully submitted,

R. L. SENSENICH, M.D., *Chairman*

I. C. BARCLAY, M.D.

F. S. CROCKETT, M.D.

C. J. CLARK, M.D.

JOHN H. GREEN, M.D.

L. A. ENSMINGER, M.D.

LOUIS D. BELDEN, M.D.

REPORT OF THE EDITOR OF THE JOURNAL

House of Delegates,

Indiana State Medical Association.

Gentlemen:

As we remarked to the Council at the last Mid-winter meeting, a report of THE JOURNAL is mailed to every member each month, but it seems

that an annual report is required, under our By-Laws.

We are pleased to state that *THE JOURNAL* continues to prosper. In the matter of pages, during the six years that have elapsed since the present *JOURNAL* setup was made, our reading pages have increased from 404 to 432. These, together with the advertising pages, have increased from 640 in 1933 to 764 in 1938. (These figures, it should be borne in mind, are for January to August each year and not for the full year.)

As to our subscription list, we are very proud of our record. In 1933 this list contained 2,990 names; in 1938 we reached the total of 3,450 names on our mailing rolls, an increase of 460 during the six-year period. These figures are taken for the month of August, when all delinquents have been deleted from the mailing lists.

Scientifically speaking, we believe *THE JOURNAL* has shown a marked improvement. Never before in this six-year period have we had so many prof- fers of papers, papers that for the most part are real contributions to medical literature. We have had to return a few excellent manuscripts, due to an Editorial Board rule that a member may have but one paper printed in *THE JOURNAL* in any one volume.

Mechanically, if we are to believe the numerous comments that come to us, *THE JOURNAL* has shown a marked improvement. Our new printer seems set on making it the best appearing magazine of its type in the land and we believe he is succeeding. At the AMA San Francisco convention, *THE JOURNAL* formed an important part of the exhibit of the Indiana State Medical Association and we are advised that it was quite a problem to keep a supply of our magazine in the exhibit—that visitors early formed the habit of appropriating them. More, at the Secretaries Conference, held at AMA headquarters, last February, a statement was made in speaking of *THE JOURNAL* by a man high in American Medicine, "Why, I do not see how *THE JOURNAL* of the Indiana State Medical Association could be improved!"

This year an innovation was begun in the way of "topics of the month," to supplement the Indiana Plan. Topics were selected by the president and his committee, and *THE JOURNAL* staff immediately set to work to obtain instructive material for publication as original articles, special articles and editorials. The plan has been remarkably successful if we may judge from the comments we have received. We have had marvelous cooperation from all who have been asked to make these contributions, for only one member failed to comply with our requests.

Our advertising pages, the very life blood of any magazine, have shown a gratifying increase, yet the fact remains that if members would answer the ads, we could make a very great increase in our income from this source. Many of the advertisements have coupons attached; it re-

quires but a moment of time and a three cent Jim Farley to use one of these; if more of our members would use them the better satisfied our advertisers would be.

A *JOURNAL* report that failed to compliment those who have contributed to our pages would be very poorly done and we take this occasion to thank the hosts of members who have sent in papers, Vox Pop material, etc.

No new departments are contemplated for our magazine now, since we believe the field is rather well covered under the present setup; however, we are ever on the alert for methods that will tend to improve our publication. We court the frank criticism of our membership; we are not thin-skinned to the extent that criticism hurts if made in the proper direction. Our constant endeavor is to keep *THE JOURNAL* in its present high place in the field of medical literature of this country.

In a personal way, we wish to say that we have endeavored to give to *THE JOURNAL* the time and attention such work deserves, and the measure of success obtained has been due to the full cooperation of the editorial staff, the official family, and the Association membership.

Respectfully submitted,

E. M. SHANKLIN, M.D., *Editor*

REPORT OF THE AUDITING COMMITTEE

House of Delegates,

Indiana State Medical Association.

Gentlemen:

At a meeting of your committee at the Indiana National Bank on August 1, 1938, the securities held by the Association, both in the general fund and the medical defense fund, were examined and found to be in order as listed by the George S. Olive and Company, certified public accountants, in their annual report for the year ending December 31, 1937. (See report of the treasurer, page 478.) Since our last report, none of the Association's holdings has matured and no additional investments have been made.

Your committee also examined the cash balances in The Indiana National Bank, The American National Bank, The Fletcher Trust Company, and The Bankers Trust Company, as shown by the check books, and all of these accounts were found to be in accord with the bank statements as of July 31, 1938. These accounts consist of the general headquarters office fund, the medical defense fund, *THE JOURNAL* fund, and the petty cash fund respectively.

Respectfully submitted,

O. B. NORMAN, M.D., *Chairman*

W. F. HUGHES, M.D.

E. B. RINKER, M.D.

O. H. BAKEMEIER, M.D.

REPORT OF COMMITTEE ON CONTROL OF CANCER

House of Delegates,

Indiana State Medical Association:

Gentlemen:

This is the first year of the existence of this Committee as an integral part of our State Association, and for this reason a good part of our work has been in the field of pioneering. However, we feel that some progress has been made.

In the first place, I wish to express the Committee's appreciation of the cooperation given us by the various other agencies of the state devoted likewise to the problem of education. Chief among these agencies are the headquarters office of the Indiana State Medical Association, the Bureau of Publicity of the Indiana State Medical Association, the Indiana State Board of Health, and the Indiana University School of Medicine.

The Council Budget Committee was kind enough to budget us the amount of fifty dollars, and by the help of the Women's Field Army we have been able to keep within our budget.

As the Committee has understood, the function of our Committee is entirely educational. This education to be applied in two directions: First, to the doctors, with the idea of instilling into them the desire and willingness to impart to the public the information that they should have in regard to the control, prevention, and cure of cancer; second, to educate the public to the fact that many cancers are curable, and a great many more are preventable, if they are given the proper attention while still in the curable stage. A concerted effort has been made to impress upon the public the value, and even the necessity of regular periodical examinations, always stressing the fact that such examination should be made by their own family physician.

As you know, the American Society for the Control of Cancer is a national organization, and has been working in this field for several years. Within the past three years they have succeeded in enlisting the aid of the National Federation of Women's Clubs in this work. Under this system, organizations have been established in forty-five states in the Union. These women are desperately serious about the matter, and have as their slogan "Two and a half million club women cannot be stopped."

They call the organization the Women's Field Army, and expressly state their purpose as limited to the dissemination of knowledge as to the Control of Cancer. Indiana is among the states so organized and, under the energetic leadership of the state commander, Mrs. George Dillinger, has taken her place among other states in this field. These women seek the cooperation of the medical profession. In Indiana, it has been the policy of your Committee to insist that no public meetings be held where this subject is to be dis-

cussed without the knowledge, consent and cooperation of the county medical society of the county in which such meeting is to be held.

The Committee has seen fit to abolish the practice of having a key man in each county as was originally advised by the National Society, and has insisted that all contacts be made with the secretaries of the individual county medical societies. Along this same line, we have insisted that the doctors in their own counties be used as speakers at public meetings wherever possible, and in a great majority of cases this has been done. Your Committee feels, after all, that this is again the direct problem of the local medical men.

For the operation of this plan the state has been divided into thirteen districts corresponding to our own Medical Society Councilor Districts. Each district has a head from among the Club Women known as Vice Commander. In each county, in each district, there is a county representative known as Captain. Thus the state is well covered, and the physicians of the state are called upon to furnish the information needed, and the advice desired for the guidance of the program. If this plan were carried out in perfection, it is possible to reach every man, woman and child in the state with this knowledge.

During this year we have found almost a uniform willingness of medical men to help when called upon to do so.

For our own information, we have made a canvass of the county societies by means of a questionnaire with the following results which we believe are reasonably accurate.

The questionnaire was sent to all county secretaries, eighty-five in number. From these men fifty-one replies were returned.

Three secretaries reported they were inactive. Of the forty-eight active societies reporting, the enclosed summary is presented.

Total returns.....	51
1. Has your County Medical Society held a meeting this year devoted to the study of cancer?	
Yes	12
No	36
2. Have you had a paper read in your society during the year on the subject of cancer?	
Yes	15
No	33
3. Approximately how many meetings have been held during the year in your county by the public, in which the subject of cancer was discussed?	
Authentic	56
Probably	65
4. If such discussions were held, were they held with the knowledge, consent, and cooperation of your county society?	
Yes, in all cases.	
5. Did your county society have requests from lay groups for speakers on the subject of cancer?	
Yes. How many? 13.	

6. Are your members ready and willing to respond to such requests?

Yes ----- 48

Inactive ----- 3

The *Journal of the Indiana State Medical Association* gave us our share of publicity. We had approximately two thousand inches of publicity through the various newspapers of the state. Approximately thirty radio talks were made by doctors in the various counties of the state, and about five made by members of the Federation of Clubs. Enormous quantities of literature were mailed from headquarters office to the various county captains for delivery to the public in their counties. We had in all five out of the state speakers. Much to the gratification of the Committee, all except about ten of these state speakers were from the local county society. One county reports twenty-five of the thirty talks made by members of the local medical society. This is a relatively new field of endeavor, and I am sure the members of the Committee are now convinced of the enormity of the undertaking. They are also convinced of its possibility for great good if properly carried out.

We respectfully suggest the following recommendations:

1. A closer understanding between the county medical societies and the public of the purpose of this drive.

2. Closer cooperation in putting through a constructive program.

3. At least one meeting a year in each county medical society at which the subject is discussed.

4. Some survey probably best made by the club women of the counties in conjunction with the county medical society of the number of living cancer cases in Indiana.

5. Wider spread to the public the fact that the whole program is educational; that no plans for treatment are contemplated, and that they are to consult their local physician for advice.

Respectfully submitted,

E. E. PADGETT, M.D., *Chairman*

C. L. BODKIN, M.D.

ALAN R. CHAMBERS, M.D.

E. H. ANDREWS, M.D.

O. T. BRAZELTON, M.D.

O. H. STEWART, M.D.

REPORT OF THE COMMITTEE ON SYPHILIS CONTROL

House of Delegates,

Indiana State Medical Association:

Gentlemen:

The report of the meeting of the Syphilis Control Committee of the Indiana State Medical Association, held in Indianapolis on May 25, 1938, will serve as the yearly report of the Committee. It is as follows:

The program of syphilis control, as established

by Dr. Thomas Parran, U. S. Surgeon-General, was discussed in detail. In order that the association may know the opinion of the Committee concerning these points, the following report is made:

Principle 1: There should be a trained public health staff to deal with syphilis in each state and city.

The Committee is of the opinion that a trained public health staff to deal with syphilis of the State is not available at the present time, but the desirability of such a staff is apparent.

Principle 2: Minimum State Laws should require reporting of cases, following up of delinquents, and the finding of sources of infection and contacts.

No action was taken on this point. The committee is of the opinion that present state laws which have been previously enacted are not functioning. The Committee believes that public opinion will establish the time when this procedure shall begin.

Principle 3: Premarital medical certificates, including serodiagnostic tests, should be a legal requirement.

The Committee was of the opinion that this point would be covered in the next session of the legislature. The Governor has already appointed a special commission for the study of this problem.

Principle 4: Diagnostic services should be freely available to every physician without charge and should meet minimum requirements of state standards of performance.

The Committee differs from the American Public Health Service in that it feels that diagnostic services should be available throughout the state to every physician in the care of indigent patients only.

Principle 5: Treatment facilities should be of good quality with convenient hours and location. Wherever possible the clinic service should be a part of an existing hospital dispensary. Hospital beds should be provided for patients needing bed care.

The Committee is of the opinion that this principle is a desirable feature in any syphilis control program. However, the Committee feels that hospital beds are not available at the present time.

Principle 6: The state should distribute anti-syphilitic drugs for the treatment of all cases to physicians.

Again the Committee differs with the American Public Health Service in that it feels that free anti-syphilitic drugs should be distributed only for indigents.

Principle 7: Routine serodiagnostic tests need to be used much more widely. In particular, every pregnancy, every hospital admission, every complete physical examination should include this test.

This is a commendable principle. The Committee was unanimous in its approval.

Principle 8: The informative program in modern diagnosis, treatment and control should be prosecuted vigorously among physicians and health officers, especially through the use of trained consultants.

The Committee feels that postgraduate work in the different communities throughout the state is a method of cooperating whole-heartedly with this principle.

Principle 9: The public educational program must be persistent, intensive, and aimed especially at those individuals in the age group in which syphilis is the most frequently acquired.

This is self evident and receives the approval of the Committee. It is through this principle that the whole program hinges, as far as success is concerned. At the present time, we are especially anxious that every opportunity should be seized to stress the desirability of reform of our marriage laws to require a blood test before marriage licenses are granted. Also, at least two tests during each pregnancy for educational as well as health measures. We also sponsor and appeal for speakers to be available for all organizations that will give them an opportunity to spread the gospel.

* * *

In addition to a review of the above principles, the Committee wishes to call to the attention of the Association its previous stand on a principle which is not included in the above report:

In view of the fact that there have been placed on the market methods for quick diagnosis of syphilis, the Committee reaffirms its stand on the use of laboratories standardized by the State Board of Health.

Respectfully submitted,
F. R. N. CARTER, M.D., *Chairman*.
HERMAN MORGAN, M.D.
MINOR MILLER, M.D.
ERNEST NAY, M.D.
B. W. RHAMY, M.D.

REPORT OF COMMITTEE ON OCCUPATIONAL DISEASES

*House of Delegates,
Indiana State Medical Association.*

Gentlemen:

In accord with the suggestion of the American Medical Association and the action taken at the meeting of the Indiana State Medical Association last year at French Lick, your Committee on Occupational Diseases was appointed by President Baker. During the year your committee has acquainted itself with such developments as have taken place in the administration of the law by the Industrial Board of Indiana. Since the law went into effect in June, 1937, until June of this year, 64 occupational disease cases have been settled by the board by agreement at the cost of \$2,051, and 34 cases have gone on to hearing, some of which have been dismissed.

Your committee commends the action of the Publicity and Executive committees in setting aside one month—this last year it was August—for the state-wide medical consideration of occupational diseases under the "Indiana Plan," and it hopes that next year this subject will receive further consideration.

One member of the committee has made the following suggestion which should be considered by the House of Delegates:

"The Indiana State Medical Association should, through its Committee on Occupational

Diseases, support the establishment of a Medical Board to determine controversial medical questions arising in the administration of the law. Such a Medical Board of three physicians could be appointed by the Governor of the state from candidates recommended by the medical society of our state. The term of office of the members of this Board to be for six years, with the expiration of the original terms of two of the members at the end of two and four years respectively. This Board should have full and complete power with respect to medical questions at issue."

Respectfully submitted,

F. W. CREGOR, M.D., *Chairman*
JOHN W. HILBERT, M.D.
GORDON W. BATMAN, M.D.
E. E. HOLLAND, M.D.
DALLAS FICKAS, M.D.
THOMAS OBERLIN, M.D.
A. N. FERGUSON, M.D.

REPORT OF COMMITTEE TO STUDY CULT- ISTS AND IRREGULAR PRACTITIONERS

*House of Delegates,
Indiana State Medical Association:*

Gentlemen:

I. INTRODUCTION

The Committee to Study Cultists and Irregular Practitioners was appointed pursuant to a resolution received and adopted at the 1937 meeting of the State Association. It was assigned the task of investigating the activities and status of cultists in Indiana; the inquiry into how other State Medical Associations are handling the cults problem; and the formulation of a program for proper action in the protection of the public as well as the medical profession from unscrupulous practices in the healing art.

It is well recognized that this activity is one best considered as a sustaining and continued policy for the Association; therefore that the work of this committee for the current year has been such character as to form a base of operations for future effort in handling the ever present problem of cultists. Such information as has been gathered and organized, and such preliminary conclusions as are reached are, in the opinion of the committee, useful mainly in establishment of policy. It is our hope that this work may be carried on in a sustaining continuity to constructive ends, either by a continuation of this committee or such other unit of the Association organization as best may be used for the purpose.

II. COUNTY SOCIETIES ASKED TO COOPERATE

Letters were sent to all of the county societies asking their voluntary cooperation in collecting pertinent data regarding cultist activities in each of their counties. Cooperative liaison was established with the State Board of Medical Examiners,

and Miss Ruth Kirk, Clerk of the Board, has cooperated most fully and effectively. Replies were received from thirty of the county organizations, in which replies were included a diversity of information. The material was organized, and tabulated, and recently presented as a confidential report to members of the Executive Committee, the Committee on Public Policy and Legislation, and the Cults Committee. Some hundred cases of ethical and legal irregularities were included in this report. It can be regarded only as a sampling of the total situation throughout the state, and while well distributed for sampling purposes, did not include a report from the largest population center. It is well known that hundreds of drugless therapists including chiropractors, naturopaths, etc., are operating throughout the state in an unlawful manner. It is to be observed also that doctors of medicine and osteopaths are reported as operating in direct violation of the medical practice act. Even the most casual knowledge of the medical practice act and of the information collected, leads one to the very obvious conclusion that the provisions of the act are being widely and openly violated, with apparently little fear of punishment, or fear of difficulty for the cultist reestablishing himself in another location in the state, in the unlikely event that prosecution should overtake him. All evidence indicates that the penalties provided in the medical practice act for its violation are not being enforced. The reasons for this will be examined later.

III. INFORMATION FROM VARIOUS STATES

Letters were sent to each of the state medical societies inquiring into what methods were being used, or activity sustained, in the handling of the cultist problem. Some thirty replies were received, and the only consistency discoverable in them was the complete lack of uniformity of point of view or activity in the matter; in some states it appears the problem is well in hand, in others is manifested a helpless anxiety. Along with these replies came pamphlets and literature pertinent to the subject; this material is on file in the Headquarters office. These replies have been condensed as a matter for reference to the policies pursued and opinions entertained regarding cultists, in other states.

IV. APPRAISAL OF MEDICAL PRACTICE ACT

Examination of the Indiana medical practice act, and comparison of it to the medical practice acts of other states, reveals it as fundamentally a good law. So long as the board of medical examiners maintains a high standard of qualifications for applicants for examination, and it is possible to enforce the penalizing clauses, the committee believes that it ranks well as a practical law in maintaining the quality of its licenses and in properly protecting the public from fraudulent practices and poorly qualified practitioners. Substantially it includes all the advantages of a

basic science law, and retains the advantage of a single licensing board.

Inability to enforce the law through lack of funds with which to gather evidence appears to be the major difficulty. Apathy of prosecuting attorneys in prosecuting cases in which evidence is submitted also obtains. Other reasons will also occur to the reader.

Substantially the cause of lack of enforcement comes down to inability to collect evidence because of lack of funds and because of lack of co-operative effort between the agencies concerned; and the inability vigorously to prosecute the offenders. The lack of public education in what to expect from the individual rendering medical service is woefully evident.

V. CULT PATIENTS

Much could be written concerning the attitude of the lay individual toward the medical service he employs; likewise much could be said about the attitude of doctors of medicine toward the type of clientele who seek the cultists. This clientele is composed largely of psychoneurotics, and of incurables suffering from purely physical disease or affliction. The one interest of the sick individual is to get well as quickly, as conveniently, and as cheaply as possible. The present emotional and intellectual education of our culture does not give the majority of people the proper basis for sound judgment in the matter; likewise the same factors lead to a large percentage of all illness being psychoneurotic in character, and representing the individual's compromise with his own particular reality. To enhance his well being, he easily turns to what in his judgment offers the quickest and easiest way out of his difficulties, and falls victim to the exaggerated and false claims of the cultist. It is pertinent to note that not infrequently a "cure" is effected by the cultist by enabling the individual to find a way out from his own particular set of anxieties. By and large, it would also appear that most doctors through lack of training, or because of impatience, do not handle well this large class of ill people, with the result that, in discouragement the patient turns to the more optimistically promising course—the cultist. Enhancement of the education of the doctor of medicine in dealing with psychoneuroses and formulating a more optimistic psychology toward the incurables would seem indicated.

The cultist works long and hard to "sell himself" to the public; his amount of service sold depends to far greater extent upon his ability to sell himself than on his intrinsic merit in the healing art. It would appear that we can take this point well; by the activity of our association in formulating the "Indiana Plan," we can feel that already we are taking it. Whereas the cultist promotes himself in the most fraudulent and unethical manner, the practice of medicine has its background of facts, of scientific research upon

which it is able to base the reality of its facts, and a long history of unbroken effort in behalf of the health of the people as a base for honest, ethical enterprise. We are selling and gifting medical service, the excellence of which is incomparably greater than that which the cultist has to offer; we are striving constantly to improve this service; we are based in a common unity of individual and group enterprise that offers best opportunity for continued technical and social medical advance. Continued and greater effort to "sell ourselves" would seem indicated.

VI. BROAD VIEW OF PROBLEM URGED

Increased zeal, and unity for the common good is needed in our county societies. Constructive aggressiveness toward our community problems in hygiene, disease control and medical care by the county medical society of each community can and does pay big dividends in public good will. Assuming local needs and local problems along with progressively minded lay and county government groups, and working out local health problems to constructive solution for that community, most certainly can be only "good medicine" for medicine.

Discussion could be endless; its focal point becomes the trite, nevertheless true, ideal that if the practice of medicine were able to fill all health needs, cults would not exist. This ideal stands also as the goal of all progressive medical effort.

No program of specific action is presented; certain indications to specific activities have been discussed. The problem of proper action in the matter of cults interlocks so completely with all the problems now confronting organized medicine, that it is one too broad for one committee working for one year to crystallize into definitive action. The committee respectfully requests the cooperation of the Executive Committee and of the Committee on Public Policy and Legislation in planning further action.

Respectfully submitted,

H. J. NORTON, M.D., *Chairman.*

ALFRED H. ELLISON, M.D.

C. V. ROZELLE, M.D.

A. J. LAUER, M.D.

C. L. BOYD, M.D.

REPORT OF COMMITTEE ON INTER-ALLIED PROFESSIONAL CONFERENCE

*House of Delegates,
Indiana State Medical Association.*

Gentlemen:

This committee met on three different occasions with representatives from the Indiana State Dental Association, the Indiana Pharmaceutical Association, the Indiana Hospital Association, and the Indiana State Nurses' Association, together with the Deans of Pharmacy of Purdue University and Indiana University, and the Dean of Dentistry of

Indiana University, for the purpose of discussing problems pertinent to the health of the citizenry of Indiana.

These meetings were held in the Union Building on the campus of Purdue University, December 2, 1937, February 3, 1938, and April 27, 1938.

At the preliminary meeting a name, Indiana Inter-Professional Health Council, was adopted for the group, and a tentative organization was effected.

At later meetings a constitution was approved for submittal to the various member associations at their annual meetings for their consideration and adoption.

The meeting of April 27th was attended by twenty-two individuals, including, besides the appointed delegates from the various organizations, Dr. Harvey of the State Board of Health, Dr. Baker and Mr. Hendricks of the Indiana State Medical Association, Dr. Crockett of Lafayette, and Dean Jordan of Purdue University.

The officers of the Council are: Dean C. B. Jordan, of Purdue University, chairman; Dr. F. T. Romberger, Lafayette, vice-chairman; and Professor H. W. Heine, Purdue University, secretary-treasurer. The Executive Committee is composed of the following: Dr. F. T. Romberger, Lafayette, chairman, representing the Indiana State Medical Association; Dr. A. R. Ross, Lafayette, representing the Indiana State Dental Association; Mr. C. E. Nelson, Hammond, representing the Indiana Pharmaceutical Association; Mr. Edgar Blake, Jr., Gary, representing the Indiana Hospital Association; and Miss Beatrice Short, Indianapolis, representing the Indiana State Nurses' Association.

Respectfully submitted,

FLOYD T. ROMBERGER, M.D.,

Chairman.

REPORT OF THE STATISTICIAN

(No report)

DELEGATES TO THE INDIANA STATE MEDICAL ASSOCIATION Indianapolis

OCTOBER 4, 5, and 6, 1938

Delegates

Alternates

ADAMS

P. O. Eicher, Decatur

C. P. Hinchman, Geneva

ALLEN

M. R. Lohman, Ft. Wayne
Wm. C. Wright, Ft. Wayne
M. B. Catlett, Ft. Wayne

E. L. Bulson, Ft. Wayne
C. B. Parker, Ft. Wayne
R. W. Elston, Ft. Wayne

BARTHOLOMEW

W. L. Green, Columbus

H. J. Norton, Columbus

BENTON

Virgil Scheurich, Oxford

George W. Marsh, Otterbein

BOONE

Charles Weddle, Lebanon

C. G. Kern, Lebanon

CARROLL

George W. Wagoner, Burrows Charles L. Wise, Camden

CASS

B. W. Egan, Logansport

**CLARK
CLAY**

John C. Shattuck, Brazil J. Frank Maurer, Brazil

**CLINTON
CRAWFORD
DAVIESS-MARTIN**

S. L. McPherson, Washington

DEARBORN-OHIO

E. L. Libbert, Lawrenceburg O. H. Stewart, Aurora

DECATUR

J. T. Morrison, Greensburg Chas. Overpeck, Greensburg

DEKALB

M. E. Klingler, Garrett W. W. Swarts, Auburn

DELAWARE-BLACKFORD

Charles Botkin, Muncie L. G. Montgomery, Muncie

DUBOIS

H. C. Knapp, Huntingburg G. A. Held, Holland

ELKHART

A. C. Yoder, Goshen L. F. Swihart, Elkhart

FAYETTE-FRANKLIN

L. Neff Ashworth, Connersville H. N. Smith, Brookville

FLOYD

P. H. Schoen, New Albany H. B. Shacklett, New Albany

FOUNTAIN-WARREN

Simeon Lambright, Covington L. J. Maris, Attica

FULTON

A. E. Stinson, Rochester

**GIBSON
GRANT**

L. D. Holliday, Fairmount B. W. Lavengood, Marion

GREENE

King L. Hull, Bloomfield G. E. Moses, Worthington

HAMILTON

C. M. Donahue, Carmel James W. Griffith, Sheridan

HANCOCK

Jesse E. Ferrell, Fortville Robt. E. Kinneman, Greenfield

**HARRISON
HENDRICKS**

O. T. Scamahorn, Pittsboro C. B. Thomas, Plainfield

HENRY

Walter M. Stout, Newcastle

HOWARD

R. E. McIndoo, Kokomo W. H. Harrison, Kokomo

HUNTINGTON

G. M. Nie, Huntington

JACKSON

H. P. Graessle, Seymour L. H. Osterman, Seymour

**JASPER-NEWTON
JAY**

John Lansford, Red Key F. E. Keeling, Portland

JEFFERSON

N. A. Kremer, Madison S. A. Whitsitt, Madison

JENNINGS

D. W. Matthews, North Vernon W. L. Grossman, N. Vernon

JOHNSON

William E. Sutton, Edinburgh

KNOX

R. B. Cochran, Vincennes R. G. Moore, Vincennes

KOSCIUSKO

E. Winton Thomas, Warsaw Charles E. Thomas, Leesburg

LAGRANGE

Harry G. Erwin, La Grange W. O. Hildebrand, Topeka

LAKET. W. Oberlin, Hammond F. A. Malmstone, Griffith
C. M. Jones, Whiting W. H. Howard, Hammond
E. L. Schaible, Gary J. P. Vye, Gary
J. M. White, Gary H. G. Cole, Hammond**LAPORTE**

Jon N. Kelly, LaPorte J. R. Phillips, Michigan City

LAWRENCE

H. C. Ragsdale, Bedford John S. Woolery, Bedford

MADISON

C. V. Rozelle, Anderson J. R. Tracy, Anderson

MARIONC. H. McCaskey, Indianapolis L. L. Shuler, Indianapolis
Ralph L. Lochry, Indianapolis R. H. Moser, Indianapolis
O. W. Sicks, Indianapolis Wm. E. Gabe, Indianapolis
Frank M. Gastineau, Indianapolis T. J. Dugan, Indianapolis
Walter P. Morton, Indianapolis E. R. Smith, Indianapolis
E. O. Asher, New Augusta F. B. Ramsey, Indianapolis
M. J. Spencer, Indianapolis J. B. Stalker, Indianapolis
H. F. Nolting, Indianapolis David H. Sluss, Indianapolis
C. F. Thompson, Indianapolis Roy V. Myers, Indianapolis
R. C. Beeler, Indianapolis H. J. Weil, Indianapolis
James F. Balch, Indianapolis C. H. Jinks, Indianapolis**MARSHALL**

A. A. Thompson, Tynes

**MIAMI
MONROE**

Hugh S. Ramsey, Bloomington Dillon Geiger, Bloomington

MONTGOMERY

T. Z. Ball, Crawfordsville Geo. A. Collett, Crawfordsville

**MORGAN
NOBLE**

W. F. Carver, Albion H. A. Williams, Kendallville

ORANGE

George Dillinger, French Lick Ivan Clark, Paoli

OWEN

R. H. Pierson, Spencer M. S. Brown, Spencer

PARKE-VERMILLION

S. C. Darroch, Cayuga W. C. Myers, Dana

**PERRY
PIKE**

T. R. Rice, Petersburg A. R. Logan, Petersburg

PORTER

Philip Corboy, Valparaiso Carl M. Davis, Valparaiso

**POSEY
PULASKI
PUTNAM**

C. B. O'Brien, Greencastle G. D. Rhea, Greencastle

**RANDOLPH
RIPLEY**

George S. Row, Osgood M. F. Daubenheyer, Holton

**RUSH
ST. JOSEPH**A. S. Giordano, South Bend Alfred Ellison, South Bend
M. D. Wygant, Mishawaka C. E. Savery, South Bend
Erwin Blackburn, South Bend G. M. Rosenheimer, S. Bend

**SCOTT
SHELBY**

B. G. Keeney, Shelbyville

SPENCER

J. C. Glackman, Rockport V. V. Schriefer, St. Meinrad

STARKE

Albert Fisher, North Judson P. O. Englerth, North Judson

STEBEN

Wm. F. Waller, Angola L. L. Eberhart, Angola

SULLIVAN

J. T. Oliphant, Farmersburg J. H. Crowder, Sullivan

SWITZERLAND

R. M. Copeland, Vevay L. H. Bear, Vevay

TIPPECANOEEarl Van Reed, Lafayette R. R. Calvert, Lafayette
Gordon A. Thomas, Lafayette O. L. McCay, Romney**TIPTON**

S. M. Cotton, Goldsmith A. E. Stouder, Kempton

VANDERBURGHRobert Acre, Evansville Herbert Dieckman, Evansville
Minor Miller, Evansville Clarence Baker, Evansville
Philip E. Yunker, Evansville**VIGO**O. R. Spigler, Terre Haute E. O. Nay, Terre Haute
R. G. Harkness, Terre Haute A. W. Cavins, Terre Haute**WABASH**

James L. Walker, LaFontaine Gordon Kidd, Roann

**WARRICK
WASHINGTON
WAYNE-UNION**

Will Thompson, Liberty Franklin Hagie, Richmond

WELLS

Max Gitlin, Bluffton A. C. Nickel, Bluffton

**WHITE
WHITLEY**

Paul Garber, South Whitley O. F. Lehmberg, Columbia City

**LIST OF PRESIDENTS OF THE INDIANA STATE
MEDICAL ASSOCIATION SINCE ITS
ORGANIZATION**

Name and Residence	Elected	Served
*Livingston Dunlap, Indianapolis.....	1849	1849
*William T. S. Cornett, Versailles.....	1849	1850
*Asahel Clapp, New Albany.....	1850	1851
*George W. Mears, Indianapolis.....	1851	1852
*Jeremiah H. Brower, Lawrenceburg.....	1852	1853
*Elizur H. Deming, Lafayette.....	1853	1854
*Madison J. Bray, Evansville.....	1854	1855
*William Lomax, Marion.....	1855	1856
*Daniel Meeker, LaPorte.....	1856	1857
*Talbot Bullard, Indianapolis.....	1857	1858
*Nathan Johnson, Cambridge City.....	1858	1859
*David Hutchinson, Mooresville.....	1859	1860
*Benjamin S. Woodworth, Fort Wayne.....	1860	1861
*Theophilus Parvin, Indianapolis.....	1861	1862
*James F. Hibberd, Richmond.....	1862	1863
*John Sloan, New Albany.....	1863	1864
*John Moffett (acting), Rushville.....	1864	1864
*Samuel M. Linten, Columbus.....	1864	1864
*Myron H. Harding, Lawrenceburg.....	1865	1865
*Wilson Lockhart (acting), Danville.....	1865	1866

*Vierling Kersey, Richmond.....	1866	1867
*John S. Bobbs, Indianapolis.....	1867	1868
*Nathaniel Field, Jeffersonville.....	1868	1869
*George Sutton, Aurora.....	1869	1870
*Robert M. Todd, Indianapolis.....	1870	1871
*Henry P. Ayres, Fort Wayne.....	1871	1872
*Joel Pennington, Milton.....	1872	1873
*Isaac Casselbery, Evansville.....	1873	1874
*Wilson Hobbs, Knightstown.....	1873	1874
*Richard E. Haughton, Richmond.....	1874	1875
*John H. Helm, Peru.....	1875	1876
*Samuel S. Boyd, Dublin.....	1876	1877
*Luther D. Waterman, Indianapolis.....	1877	1878
*Louis Humphreys, South Bend.....	1878	—
*Benj. Newland (acting), Bedford (v.-p.).....	1878	1879
*Jacob R. Weist, Richmond.....	1879	1880
*Thomas B. Harvey, Indianapolis.....	1880	1881
*Marshall Sexton, Rushville.....	1881	1882
*William H. Bell, Logansport.....	1882	1883
*Samuel E. Munford, Princeton.....	1883	1884
*James H. Woodburn, Indianapolis.....	1884	1885
*James S. Gregg, Fort Wayne.....	1885	1886
*General W. H. Kemper, Muncie.....	1886	1887
*Samuel H. Charlton, Seymour.....	1887	1888
*William H. Wishard, Indianapolis.....	1888	1889
*James D. Gatch, Lawrenceburg.....	1889	1890
*Gonsolvo C. Smythe, Greencastle.....	1890	1891
*Edwin Walker, Evansville.....	1891	1892
*George F. Beasley, Lafayette.....	1892	1893
*Charles A. Daugherty, South Bend.....	1893	1894
*Elijah S. Elder, Indianapolis.....	1894	1895
Charles S. Bond, (acting), Richmond.....	1894	1895
*Miles F. Porter, Fort Wayne.....	1895	1896
*James H. Ford, Wabash.....	1896	1897
William N. Wishard, Indianapolis.....	1897	1898
John C. Sexton, Rushville.....	1898	1899
*Walker Schell, Terre Haute.....	1899	1900
*George W. McCaskey, Fort Wayne.....	1900	1901
*Alembert W. Brayton, Indianapolis.....	1901	1902
John B. Berteling, South Bend.....	1902	1903
*Jonas Stewart, Anderson.....	1903	1904
*George T. MacCoy, Columbus.....	1904	1905
*George H. Grant, Richmond.....	1905	1906
*George J. Cook, Indianapolis.....	1906	1907
*David C. Peyton, Jeffersonville.....	1907	1908
*George D. Kahlo, French Lick.....	1908	1909
*Thomas C. Kennedy, Shelbyville.....	1909	1910
*Frederic C. Heath, Indianapolis.....	1910	1911
*William F. Howat, Hammond.....	1911	1912
*A. C. Kimberlin, Indianapolis.....	1912	1913
*John P. Salb, Jasper.....	1913	1914
*Frank B. Wynn, Indianapolis.....	1914	1915
*George F. Keiper, Lafayette.....	1915	1916
*John H. Oliver, Indianapolis.....	1916	1917
Joseph Rilus Eastman, Indianapolis.....	1917	1918
William H. Stemm, North Vernon.....	1918	1919
Charles H. McCully, Logansport.....	1919	1920
*David Ross, Indianapolis.....	1920	1921
William R. Davidson, Evansville.....	1921	1922
*Charles H. Good, Huntington.....	1922	1923
*Samuel E. Earp, Indianapolis.....	1923	1924
E. M. Shanklin, Hammond.....	1924	1925
C. N. Combs, Terre Haute.....	1925	1926
Frank W. Cregor, Indianapolis.....	1926	1927
George R. Daniels, Marion.....	1926	1928
Charles E. Gillespie, Seymour.....	1927	1929
Angus C. McDonald, Warsaw.....	1928	1930
Alois B. Graham, Indianapolis.....	1929	1931
Franklin Smith Crockett, Lafayette.....	1930	1932
Joseph H. Weinstein, Terre Haute.....	1931	1933
Everett E. Padgett, Indianapolis.....	1932	1934
*Walter J. Leach, New Albany.....	1933	1935
Roscoe L. Sensenich, South Bend.....	1934	1936
*Edmund Dougan Clark, Indianapolis.....	1935	1937
Herman M. Baker, Evansville.....	1936	1938

* Deceased.

HOTELS IN INDIANAPOLIS

According to the Hotel Red Book, the official publication of the American Hotel Association, there are 7,034 rooms in Indianapolis in 39 hotels. This does not include facilities available at the two downtown clubs, which increases that number to 41 hotels with 7,309 rooms.

Name and Location	Type of Room	Without Bath	With Bath
Antlers Hotel 750 N. Meridian	Single Double	None None	\$2.50- 4.00 4.00- 6.00
Barton Hotel 505 N. Delaware St.	Single Double	1.50 2.50	2.00 3.00
Brevort Hotel 207 N. Illinois St.	Single Double	1.25 & up 2.00 & up	2.00 & up 2.50- 3.50
Claypool Hotel Washington & Illinois	Single Double Twin Beds Parlor Suites (Single) (Double)	None None None None None None	3.00- 6.00 4.50- 8.00 5.50- 8.00 8.00- 9.00 10.00-11.00
English Hotel Monument Circle	Single Double Twin Beds Parlor Suites	1.25-1.50 2.00-2.50 4.00 5.00- 8.00	1.50- 2.50 2.50- 3.50 4.00 5.00- 8.00
Harrison Hotel 51 N. Capitol Ave.	Single Double Twin Beds Suites (2 rooms)	None None None None None	2.50- 4.00 4.00- 6.00 5.50- 6.00 8.00- 9.50
Lincoln Hotel 117 W. Washington St.	Single Double Twin Beds Suites (Single) (Double) (Single & Double)	None None None None None None None	3.00- 6.00 4.50- 8.00 5.00- 7.00 10.00 12.00 14.00
Linden Hotel 311 N. Illinois St.	Single Double	1.50-1.75 2.50-3.00	2.50- 3.50 3.50- 4.50
Lorraine Hotel 12 S. Capitol Ave.	Single Double Twin Beds	1.25 & up 2.00 & up 2.50 & up	2.00 & up 3.00 & 4.00 4.50 & 5.00
Marott Apt. Hotel 2125 N. Meridian St. (permanent and transient)	Single Double Twin Beds (Single) (Double) Parlor Suites (Single) (Double)	None None None None None None None None	3.00 & up 5.00 & up 3.50 & up 6.00 & up 4.00 & up 6.00 & up
New Colonial Hotel 220 S. Illinois St.	Single Double Twin Beds	1.00-1.25 1.50 None	1.25- 1.50 2.00- 2.50 3.00 & up
Pennsylvania Hotel 947 N. Pennsylvania	Single Double	None None	2.00- 2.50 3.00- 4.00
Plaza Hotel 231 N. Capitol Ave.	Single Double Twin Beds	1.00-1.50 1.50-2.00 None	1.50- 2.00 2.00- 2.50 2.50- 3.00
Riley Hotel 155 West 16th St.	Single (running water) Double (running water) Twin Beds	1.50-1.75 2.50-2.75 None	2.00- 3.00 3.00- 4.00 4.00- 5.00
Severin Hotel 201 S. Illinois St.	Single Double Twin Beds	None None None	2.50- 4.00 4.00- 6.00 5.00- 7.00
Sheffield Inn 958 N. Pennsylvania St.	Single Double	None None	2.25- 2.50 3.25- 4.00

Name and Location	Type of Room	Without Bath	With Bath
Spencer Hotel 248 S. Illinois St.	Single Double Twin Beds Suites (2 persons) (4 persons)	1.50 2.50 3.00 None None None	2.00- 2.50 3.00- 3.50 4.00- 5.00 3.50 5.00
Spink Hotel 233 McCrea Place	Single Double Twin Beds	1.00-1.25 None None	1.50- 2.25 2.75- 3.50 4.00
Spink Arms Hotel 410 N. Meridian St.	Single Double	None None	2.50- 5.00 4.00- 7.00
Stratford Hotel 136 W. Market	Single Double Twin Beds	1.50 2.00 None	2.00 2.50 3.50
Warren Hotel 123 S. Illinois St.	Single Double Twin Beds	None None None	2.25- 3.50 3.50- 5.00 4.00 & up
Washington Hotel 34 E. Washington St.	Single Double Twin Beds Suites (Single) (Double)	None None None None None None	2.25- 4.00 3.75- 5.50 5.50 6.00 8.00- 9.00
Williams Hotel 253 W. Washington	Single Double	1.00 1.50	1.50 2.50
Athletic Club 350 N. Meridian St.	Single Twin Beds Suites	None None None	2.50- 4.00 5.00- 6.00 10.00-12.00
Columbia Club Monument Circle	Single Twin Beds Suites (Single) (Double)	None None None None None	3.00- 4.50 4.50- 7.00 7.50 10.00

Note: Arrangements for these private club facilities can only be made through the members of the clubs.

DATA REGARDING PREVIOUS ANNUAL SESSIONS

Year	Annual Session	Place	Attendance
1908	59th	French Lick	312
1909	60th	Terre Haute	421
1910	61st	Fort Wayne	450
1911	62nd	Indianapolis	748
1912	63rd	Indianapolis	590
1913	64th	West Baden	312
1914	65th	Lafayette	527
1915	66th	Indianapolis	646
1916	67th	Fort Wayne	381
1917	68th	Evansville	270
1918	69th	Indianapolis	388
1919	70th	Indianapolis	
1920	71st	South Bend	421
1921	72nd	Indianapolis	550
1922	73rd	Muncie	522
1923	74th	Terre Haute	823
1924	75th	Indianapolis	1,012
1925	76th	Marion	800
1926	77th	West Baden	900
1927	78th	Indianapolis	1,500
1928	79th	Gary	892
1929	80th	Evansville	814
1930	81st	Fort Wayne	1,115
1931	82nd	Indianapolis	1,033
1932	83rd	Michigan City	904
1933	84th	French Lick	637

1934.....	85th	Indianapolis	1,814
1935.....	86th	Gary	1,011
1936.....	87th	South Bend	1,150
1937.....	88th	French Lick	1,154
1938.....	89th	Indianapolis	?

Exhibitors

Booth No.

1. Jones Surgical Supply Co., Cleveland, Ohio.
2. Hoosier Pharmacal Co., Indianapolis.
- 3-4. McNeil Laboratories, Inc., Philadelphia
5. Horlick's Malted Milk Corp., Racine, Wisc.
6. Akron Surgical House, Inc., Indianapolis.
7. Jones Metabolism Equipment Co., Chicago.
8. Lederle Laboratories, Inc., New York, N. Y.
9. Philip Morris & Co., New York, N. Y.
10. C. V. Mosby Co., St. Louis.
11. Medical Protective Co., Wheaton, Ill.
12. Jones Metal Products Co., West Lafayette, Ohio.
13. S. H. Camp & Co., Jackson, Michigan.
14. American Medical Rating Bureau, Inc., Fort Wayne.
15. H. J. Heinz Co., Pittsburgh, Pa.
16. Pitman-Moore Company, Indianapolis.
17. A. S. Aloe Company, St. Louis, Mo.
18. Gerber Products Co., Fremont, Michigan.
19. M and R Dietetic Laboratories, Columbus, Ohio.
20. White Haines Optical Company, Indianapolis, Ind.
21. Mellins Food Company, Boston, Mass.
- 22-23. Merck and Co., Inc., Rahway, N. J.
24. R. B. Davis Co., Hoboken, N. J.
25. E. R. Squibb & Sons, New York City.
26. W. B. Saunders Company, Philadelphia, Pa.
27. General Electric X-Ray Corporation, Chicago.
28. Lakeside Laboratories, Inc., Milwaukee, Wisc.
31. American Optical Co., Chicago, Ill.
32. Petrolagar Laboratories, Inc., Chicago, Ill.
33. White Laboratories, Inc., Newark, N. J.
34. U. S. Standard Products Co., Woodworth, Wisc.
35. Stokely Brothers Co., Inc., Indianapolis.
- 36-37. Pet Milk Sales Corporation, St. Louis.
38. Dick X-Ray Company, St. Louis, Mo.
39. Liebel-Flarsheim Co., Cincinnati, Ohio.
40. American Hospital Supply Corporation, Chicago, Ill.
41. Max Woche & Son Company, Cincinnati, Ohio.
42. Mead Johnson & Co., Evansville, Ind.

Booth Number 1

JONES SURGICAL SUPPLY COMPANY Cleveland, Ohio

The Jones Surgical Supply Company of Cleveland will again exhibit at the convention of the Indiana State Medical Association, displaying the completely new line of General Automatic Short Wave Therapy apparatus along with the Jones Laboratory Pharmaceutical line, being exclusive dealers for both in Indiana.

Mr. L. G. (Jack) Voorhees, sales manager of the company, who is well known to Hoosier physicians, will be in charge, and will be assisted by Dr. C. A. McCormick, a veteran of forty years in Indiana, and Mr. J. D. Archer of the Fort Wayne territory; also Mr. Standley D. Eilenberger, chief engineer of the General Radio Therapy Laboratories, manufacturers of the General Automatic Short Wave, will attend.

Booths Numbers 3 and 4

MCNEIL LABORATORIES, INC. Philadelphia, Pa.

McNeil Laboratories, Inc., Philadelphia, Pa., will exhibit such scientific contributions as Digitalis Duo-test which, as its

name implies, is assayed by two methods to insure accuracy and precision; the new McNeil Emulsion Castor Oil; Rosebud Vaginal Tampons of special cup shape to fit the cervix and allow prolonged medication; Lubricant "McNeil," a sterile, aromatized jelly containing oxyquinoline sulphate; also, other new and interesting pharmaceutical products.

Booth Number 5

HORLICK'S MALTED MILK CORPORATION Racine, Wisconsin

Nourishing, digestible, appetizing—these are three outstanding qualities for which Horlick's is famous, either the powdered or tablet form. Visit Booth No. 5. You will be interested in the many dietary uses—from infant feeding to old age. Note especially the convenience of the tablets for interval feeding in ulcer diets.

Booth Number 6

AKRON SURGICAL HOUSE, INC. Indianapolis

The Akron Surgical House, Inc., will exhibit a general line of surgical instruments, office furniture, and physical therapy apparatus. New items will be featured.

Mr. Ed Clark and Mr. H. E. Tate will be in charge of the exhibit.

Booth Number 7

JONES METABOLISM EQUIPMENT COMPANY Chicago

The Jones Metabolism Equipment Company will feature as their display the Jones Motor Basal metabolism apparatus.

A special feature of this unit is that it contains no water and requires no calculation in the determination of the basal metabolic rate.

Mr. William Niedelson will be in charge of the booth.

Booth Number 8

LEDERLE LABORATORIES, INC. New York and Chicago

Lederle Laboratories, Inc., will feature a seasonal display of therapeutic sera for all types of pneumococcus pneumonia, Globulin Modified Lederle Antitoxins; Oral and Parenteral Liver, Pertussis Antigen, Diphtheria Toxoid, and the Vitamin Products, including Vi-Delta Emulsion and Capsules, Vitamin E Complex, Oral and Parenteral.

Literature on all products will be available and samples of the two vitamin products mentioned will be distributed.

Messrs. V. A. Haring, E. V. Scott, H. J. Carwin and F. J. Caverly will represent Lederle at the meeting.

Booth Number 9

PHILIP MORRIS & COMPANY New York City

Philip Morris & Co., Ltd., Inc., will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representatives will be happy to discuss researches and problems on the physiological effects of smoking.

Booth Number 10

THE C. V. MOSBY COMPANY St. Louis

Among the many new Medical books to be exhibited by the C. V. Mosby Company are Hardy's "Acute Surgical Diseases of the Abdomen," Pruitt's "Hemorrhoids," Watson's "Hernia," the second edition of Gradwohl's "Clinical Laboratory Methods and Diagnosis," the second edition of Bray's "Clinical Laboratory Methods," the fifth edition of Porter and Carter's "Management of the Sick Infant," Jensen's "Heart in Pregnancy" and Crossen's "Operative Gynecology." Approximately forty other recent works will be included in the display.

Booth Number 11**THE MEDICAL PROTECTIVE COMPANY**
Wheaton, Illinois

The Medical Protective Company's representative, thoroughly trained in professional liability underwriting, invites you to visit exhibit booth number 11. He is entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relationship. He will be glad to explain how this Company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

Booth Number 12**THE JONES METAL PRODUCTS CO.**
West Lafayette, Ohio

Exhibited in booth number 12 is the Relax Bed Pan manufactured by the Jones Metal Products Company of West Lafayette, Ohio. This modern bed pan is expressly designed for patient comfort and has banished the age-old problem of "bed pan fear."

The Relax permits the patient's weight to rest at mattress level in a normal position conducive to thorough evacuation. The body conforming seat area is increased to provide greater ease and the additional capacity of the Relax reduces the possibility of accidents to a minimum.

This new bed pan can be served to a heavy or helpless patient by the smallest attendant without the least effort or strain for either. The Relax has been found especially useful for patients who cannot or should not be moved from their reclining position.

Booth Number 13**S. H. CAMP & COMPANY**
Jackson, Michigan

S. H. Camp & Company's exhibit will contain various models of physiological supports for men and women. The supports designed for post-operative, visceroptosis, hernia, orthopedic and other specific uses will be explained in detail by Mr. A. Y. Simpson and Miss W. L. Esch, staff representatives from the Camp organization.

Booth Number 14**AMERICAN MEDICAL BUSINESS BUREAU, Inc.**
Fort Wayne

The American Medical Business Bureau, Inc., and its affiliates will demonstrate and explain their new plan and methods for servicing professional fees which has been developed after years of experience in this field. This service enables the professional man or hospitals to offer the patient, who is not able to pay cash, a plan to liquidate his account on the budget plan over a ten month payment plan. A survey of the larger cities has shown that this plan has been beneficial to the professional man and his patients. The average patient is accustomed to making his purchases on the budget plan, and is, therefore, agreeable to handling his medical expense on that basis. The physician improves his collections and reduces losses without sacrificing the good-will of his patients.

Messrs. E. L. Koenemann, C. L. Lannin, and B. K. Williams will be in charge of the booth, and will be glad to explain this service to you.

Booth Number 15**H. J. HEINZ COMPANY**
Pittsburgh

In order that you may see the natural fresh color and uniform consistency of Heinz Strained Foods, our display presents in an attractive manner all twelve varieties. Naturally, you have some questions as to their preparation and uses. We therefore invite you to let our representative serve you in this respect.

We will be glad to send you a copy of the sixth edition of our Nutritional Chart upon registration at our exhibit.

Booth Number 16**PITMAN-MOORE COMPANY**
Indianapolis

A completely revamped and enlarged exhibit of medical superstitions will be featured by Pitman-Moore Company in space 16. This type of exhibit was pioneered by Pitman-Moore a number of years ago and proved so popular with members of the profession that it has been greatly enlarged and improved until now it embraces almost twice as many examples of medical oddities as when last seen in Indianapolis. Considerable research was necessary in order to secure the data for the exhibit, and much of the material had to be gathered from the four quarters of the globe. In addition, a number of expensive hand carvings were required to represent fetishes popular in an earlier day.

Executives of the company and a number of its representatives in its Indiana territory will be in attendance.

Booth Number 17**A. S. ALOE COMPANY**
St. Louis, Mo.

A. S. Aloe Company will display a general line of surgical instruments and equipment for the physician and hospital. The new Aloe Short Wave Diatherm and many other specialties will be featured. Mr. Curtis and Mr. Oldfather, Aloe representatives, will supply those interested with brochures on Aloe Steeline, the most modern creation in physician's fine treatment room furniture, and will be glad to render any possible service.

Booth Number 18**GERBER PRODUCTS COMPANY**
Fremont, Mich.

Gerber's, manufacturers of Strained Baby Foods, cordially invites you to inspect the baby foods on display, especially the new items. Two kinds of literature are available for examination and will be sent to you, on request: (1) that for professional use only, and (2) some for distribution to mothers or adult patients on therapeutic diets.

Miss Harriet Davis will be our representative in the booth.

Booth Number 19**M & R DIETETIC LABORATORIES, INC.**
Columbus, Ohio

M & R Dietetic Laboratories, Inc., Columbus, Ohio, will display Similac and powdered SofKurd. Representatives will be glad to discuss the merits and suggested application of these products.

Mr. J. E. Wheeler and Mr. A. O. Caldwell will be in charge of our booth.

Booth Number 20**WHITE-HAINES OPTICAL COMPANY**
Columbus, Ohio

This exhibit will feature the latest developments of optical science, including an array of modern ophthalmic equipment. Of especial interest will be the new Royal Rotoscope, one of the most unusual instruments ever developed in this field. It enables practitioners to provide complete visual comfort for eye patients. The Royal combines the features of many instruments into one, with the result that the practitioner is able to measure the angle of deviation, provide training for eyes which are light adapted at all times, and to attain many other desirable objectives. By all means visit the White-Haines booth and see this outstanding instrument. Other fine equipment includes the Greens' Refractor and the Bausch & Lomb Slit Lamp. An interesting display of ophthalmic products, such as Bausch & Lomb Panoptik Bifocals, will also be explained to visitors. The White-Haines Optical Company have offices in the Hume-Mansur Building, Indianapolis, and are distributors of Bausch & Lomb products.

Donald Rowles, Jack Shreffler and Carl Young will be in attendance from Indianapolis, and E. F. Wildermuth from Columbus will be in attendance.

Booth Number 21
MELLIN'S FOOD COMPANY
 Boston, Mass.

Fitting the food to the baby, the correct approach to bottle feeding, is the underlying principle of the easily workable method that employs Mellin's Food as the milk modifier. A discussion of this matter with physicians is sincerely desired and your visit to the Mellin's Food Company's exhibit, booth No. 21, will be greatly appreciated.

Booth Numbers 22 and 23
MERCK & COMPANY, INC.
 Rahway, N. J.

The importance of having prescriptions filled with prescription chemicals of the highest quality is a message to the medical profession featured at the Merck booth.

An additional feature of this display is the showing of recent chemical developments, such as Nicotinic Acid, Magnesium Trisilicate, Sulfanilamide, Vitamin B₁, and Riboflavin.

Established products, such as Tryparasamide Merck, the Arsphenamines, Cebione, Mecholyl, Erythrol Tetranitrate Merck, and Pyridium will also be displayed.

The Merck representatives in attendance will be pleased to answer inquiries regarding these, as well as other products supplied under the Merck label.

Representatives in attendance will be Mr. S. A. Gaffney, Mr. M. R. Hamar and Mr. F. Kraus.

Booth Number 24
R. B. DAVIS COMPANY
 Hoboken, N. J.

Enjoy a drink of delicious Cocomalt at Booth No. 24. Cocomalt is refreshing, nourishing, and of the highest quality. It has a rich content of Vitamin D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for the blood; Protein for strength and muscle; Carbohydrate for energy.

Mr. George Dowding will be in charge of the booth.

Booth Number 25
E. R. SQUIBB AND SONS COMPANY
 New York City

Physicians attending the Indiana State Medical Association meeting are cordially invited to visit the Squibb Exhibit in Booth No. 25.

The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items will be featured.

Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Booth Number 26
W. B. SAUNDERS COMPANY
 Philadelphia

These publishers will have on exhibit a complete line of their books. Included will be many new books and new editions of interest to doctors because of the clinical character of the books. Included will be the new third edition of Beckman's "Treatment in General Practice," Herman's new "Practice of Urology," Beck's brand new book on "Laboratory Hematologic Diagnosis," Barsky's "Plastic Reparative Surgery," Reimann's book on "The Pneumonias," the new second edition of Andrews' "Diseases of the Skin," the new Mallory's "Pathological Technique," the new seventh edition of Goepf's "Medical State Board Questions and Answers," of particular interest to those taking examinations in the specialties, the new fourth edition of Boyd's "Surgical Pathology," the "Medical Clinics of North America," the

"Surgical Clinics of North America," the new eighteenth edition of the "American Illustrated Medical Dictionary," the new sixth edition of Norris & Landis' "Diseases of the Chest," the new third edition of Curtis' "Textbook of Gynecology," the new seventh edition of "DeLee's Obstetrics," advance sheets of the brand new, remade eleventh edition of Scudder's "Treatment of Fractures."

Of course, in addition, there will be many standard works such as Bickham's "Operative Surgery," Warbasse-Smyth's "Surgical Treatment," Christopher's "Textbook of Surgery," and Christopher's "Minor Surgery," Cecil's "Medicine," Tuft's "Clinical Allergy," and many others.

Booth Number 27
GENERAL ELECTRIC X-RAY CORPORATION
 Chicago, Ill.

At the G-E exhibit booth you will have an opportunity to learn many interesting facts concerning the latest developments and improvements in electromedical equipment. In x-ray equipment, for example, the new Model F-3 Office-Portable shockproof unit, of considerably higher power than its predecessors, and with features of portability which make it just as practical to use in the patient's home as in the office. For a wider range of diagnostic service, there is also the more recently announced Model D3-38 oil-immersed, shockproof x-ray unit, complete with adjustable table for vertical and horizontal radiography and fluoroscopy.

Learn, too, the important facts on the G-E Inductotherm for heating deep-seated tissues and for producing artificial fever by electromagnetic induction—proved clinically to be the most efficient method for these purposes. Also inquire about the latest improved G-E Electrocardiograph, Model B, compact and sturdily-built for portability and durability, with a refinement of control and sensitivity that insure cardiographic records of a consistently fine diagnostic quality.

Booth Number 28
LAKESIDE LABORATORIES, INC.
 Milwaukee, Wis.

The Lakeside Laboratories, Inc., specialists in the manufacture of parenteral medication, will be found in Booth Number 28. A number of Council-Accepted ampoule preparations will be on display. Dan C. Gill, divisional sales manager, Mr. Frank Ward, and Mr. John W. Beaver, Indiana representatives, will welcome their friends who visit their booth. Literature and information will be available.

Booth Number 31
AMERICAN OPTICAL COMPANY
 Chicago, Ill.

Our exhibit at the forthcoming Indiana State Medical meeting will feature the Stereo-Orthopter, the Junior Metron-O-Scope, the AO Phoropter, the Polaroid Ophthalmoscope and other diagnostic instruments used by oculists and aurists.

Our exhibit will be in charge of T. F. Schlaegel, assisted by Louis Mitchell and J. G. Budd.

There will be a most comprehensive exhibit of outstanding refracting equipment.

Booth Number 32
PETROLAGAR LABORATORIES, INC.
 Chicago, Ill.

Physicians are cordially invited to visit the new convention display at Booth No. 32 where Petrolagar Laboratories, Inc., will be represented by Messrs. R. C. Allen and H. L. Shelton.

Petrolagar is liquid petrolatum 65 cc. emulsified with 0.4 Gm. agar in a menstruum to make 100 cc., accepted by the

Council on Pharmacy and Chemistry of the American Medical Association for the specialized treatment of constipation.

Scientific drawings and literature on the subject of constipation will be available in addition to samples of the five types of Petrolagar.

Booth Number 33

WHITE LABORATORIES, Inc.

Newark, N. J.

White's Cod Liver Oil Concentrate, in Booth 33, will offer for your consideration, information covering the entire field of cod liver oil concentration, together with clinical data and evidence concerning the efficacy of its Liquid, Tablet and Capsule concentrates, as well as of cod liver oil, per se.

Informed representatives, and descriptive literature, reprints and excerpts will further demonstrate cod liver oil efficacy, and will point out White Laboratories, Incorporated, contributions in the vitamin A and D field.

White Laboratories, Incorporated, is the world's largest manufacturer of cod liver oil concentrates, and is one of the largest users of cod liver oil for pharmaceutical purposes in the world.

Mr. E. B. Ray will be in charge of the booth.

Booth Number 34

U. S. STANDARD PRODUCTS COMPANY

Chicago, Ill.

U. S. Standard Products Company of Woodworth, Wisconsin, invites the physicians of the Indiana State Medical Association to pay them a visit at Booth No. 34. The U. S. Standard Products Company manufactures Biologicals, Ampules, Glandulars and Pharmaceutical Specialties.

We shall feature our Cochrane preparations, which are Copper, Liver and Iron, manufactured under license of the Wisconsin Alumni Foundation.

Our Indiana sales representatives, Mr. Al. Zornig, Mr. I. C. Carmel and Mr. R. E. Belser, will be in attendance at the booth to greet their old friends of the Indiana State Medical Association and will also be very happy to make new acquaintances.

Drop around and let's show you what we have to offer.

Booth Number 35

STOKELY'S BABY FOODS

Indianapolis

The fourteen different items in the Stokely line of baby foods, in addition to Stokely's Tomato Juice and Stokely's Grapefruit Juice, will be displayed at Booth No. 35 at the coming Indianapolis session of the Indiana State Medical Association. All of these items are carefully designated to meet the particular needs of infant feedings.

Instead of the usual method of mashing through sieves, Stokely's Baby Foods are prepared by a special fine-chopping process known as "comminuting." This process preserves natural flavor and color, produces uniform texture, and retains valuable vitamins and mineral salts in high degree. Each vegetable is also correctly seasoned for proper palatability. This results in an unusually fresh and delicious flavor readily acceptable to most babies.

Mr. J. T. Field, sales manager of Stokely's Baby Foods, will be present.

Booth Numbers 36 and 37

PET MILK SALES CORPORATION

St. Louis, Mo.

An actual working model of a milk condensing plant in miniature will be exhibited by Pet Milk Company in booths 36 and 37. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk booth.

Booth Number 38

THE DICK X-RAY COMPANY

Indianapolis

The Dick X-Ray Company, in spaces number 38 and 39, will display in one space the latest, most modern Westinghouse X-Ray equipment, including the Pandex and the 30 Milliamper Diadex.

In the other booth, they will display the complete line of the famous Liebel-Flarsheim Bovie Electro-Surgical Units together with the complete line of the equally famous Liebel-Flarsheim Short Wave Generators.

The Dick X-Ray Company cordially invite every physician to visit their booths and see this equipment.

Our Dr. C. F. Dick and Messrs. Summers, Marsh and Corum will be present as our representatives.

Booth Number 39

LIEBEL-FLARSHEIM COMPANY

Cincinnati, Ohio

Liebel-Flarsheim, Cincinnati, Ohio, in conjunction with their dealers, the Dick X-Ray Co., 443 N. Pennsylvania St., Indianapolis, Indiana, will exhibit the well-known L-F Short Wave Generators as well as the famous Bovie Electro-Surgical Units. In addition, other new and useful physiotherapy apparatus will be shown.

A cordial invitation is extended to visit the Liebel-Flarsheim booth, No. 39, to inspect this apparatus and have it demonstrated to you.

Booth Number 40

AMERICAN HOSPITAL SUPPLY CORPORATION

Chicago

Don't miss the new simple Baxter Blood Transfusion Set and see the Baxter's Vacoliters, the same Intravenous Solution used exclusively by the Mayo Clinic. Investigate Coli-Bactragen—it does prevent peritonitis. Review the new apparatus for administering oxygen therapy—economically. Look over the automatic apparatus for continuous Wangenstein suction.

Booth Number 41

MAX WOCHER & SON CO.

Cincinnati

The booth of The Max Wocher & Son Company of Cincinnati will contain, as usual, many new and ingenious surgical items. The vast scope of this company enables it to keep in touch with all new developments and its resources permit it to present them to the medical fraternity through the medium of this convention. The Wocher exhibit will encompass surgical steel furniture, surgical instruments and innumerable sundries and novelties manufactured by the company in its own factory in Cincinnati. In celebration of its centenary, The Max Wocher & Son Company is offering to the Indiana profession a new stainless steel and bronze sterilizer, fully automatic and backed by the Wocher guarantee. The prices of the three sizes of this new model will be considerably lower than those of comparable make. A visit to the Wocher booth will convince the attendant at the convention of the progressive nature of this house and of its desire to be of real service to the profession.

Booth Number 42

MEAD JOHNSON & COMPANY

Evansville, Ind., U. S. A.

Mead Johnson & Company at Booth No. 42 are distributing this year an unusually fine souvenir item. It is not only beautiful but extraordinary because it contains no advertising. Ask for your copy of "Parergon."

The complete display of Mead Products includes two new ones.

Our representative, Mr. P. G. Bicknell, will attend this meeting.

THE JOURNAL

OF THE

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DEVOTED TO THE INTERESTS OF THE MEDICAL
PROFESSION OF INDIANA

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SEPTEMBER, 1938

Editorials

PRESIDENT BAKER

Herman M. Baker, M.D., was born in Louisville, Kentucky, forty-eight years ago. His parents later resided in Terre Haute where Dr. Baker attended the public schools. In 1910 he graduated from the medical department of Louisville University and followed that with a two-year internship in St. Mary's hospital in Evansville. After engaging in general practice in Pike and Dubois counties for some years, he took postgraduate work in Boston. While there, he enlisted in the U. S. Army Medical Corps, with the rank of First Lieutenant, and served two years overseas, much of it front line battle duty. He retired from service with the rank of Lieutenant-Colonel.

Returning to Evansville, Dr. Baker limited his practice to internal medicine. He has served as president and secretary of the Vanderburgh County Medical Society, and for fourteen years represented that society as a member of the House of Delegates. He is a member of the American College of Physicians and a diplomate of the American Board on Internal Medicine.

In 1913, Dr. Baker was married to Miss Grace Sleno, and they have one daughter, now Mrs. Dallas Fickas.

In 1936, the House of Delegates chose Dr. Baker as president-elect of the Indiana State Medical Association. Succeeding events have shown the wisdom of this choice, for seldom in our long history have we had a leader possessed of all the necessary adjuncts to a year of progress in Association affairs. He early evinced a keen perspective and he possesses a native ability, a most pleasing personality, and a tactfulness that might well be emulated by any of us.

Dr. Baker has gone through the most trying year in the history of the Association, giving of his time and talents in a most generous and practical manner. He has visited every section of Indiana, carrying messages that have been of great help to his medical confreres. Day after day he has absented himself from his office, uncomplaining, imbued with the feeling that so much had to be done and that, as our leader, it was his duty to do it.

An outstanding chapter in his busy career is his monumental contribution during the Ohio River flood days in 1937. Sensing the enormity of the disaster, Dr. Baker closed his office, sent his family to Indianapolis, and then helped to create the flood relief emergency headquarters, went to work there, and spent his few sleeping hours during the two weeks of the emergency without leaving his post. The writer was told that Dr. Baker knew all the answers, that no matter what emergency arose, he had a solution. One incident was related concerning the immediate necessity for a large number of John boats. Dr. Baker not only knew where the material could be had but knew where to locate experienced boat builders. He did not resume his professional work until near normalcy had been restored in the flood district.

We deem it a pleasure to record some of the many achievements of this man whose service to his profession and to the Indiana State Medical Association has been of an outstanding character. We would be remiss did we not comment upon his monthly messages in THE JOURNAL. We have had many most favorable comments on these, not alone from Indiana readers. His was the idea of "a year of preventive medicine" (the Indiana Plan), a feature of the JOURNAL for the current year.

Our summary of President Baker is: a man of character, a man of marked ability, a man of unquestioned leadership, a man who will leave a memory which will long endure in Association history.

HEART EMERGENCIES

Any sudden collapse is usually considered a heart attack until proved otherwise. In many of these conditions which appear to be acute cardiac emergencies, more careful study proves the symptoms to be largely of a nervous origin, or the result of some remote condition such as a benign syncope, a referred chest pain resulting from some gastrointestinal disorder, breathing disturbances associated with emotional upsets, etc. A hasty diagnosis and a grave prognosis often lay the foundation for a cardiophobia which may handicap the individual for years. Such a grave prognosis, based on a hurried decision, not only is embarrassing to the physician who makes the error but reflects unfavorably on the profession as a whole and is largely responsible for the group of patients who consult irregular practitioners.

True heart emergencies are less common than the lay public, the press, and occasionally members of the profession would have us believe. Fainting, a common condition which is often thought to be the result of heart disease, is more often a benign syncope of vasomotor origin than a primary heart condition. Aortic stenosis, paroxysmal auricular tachycardia, and complete heart-block (Stokes-Adams syndrome) are the three conditions primarily found in the heart which usually explain syncope. Carotid sinus syncope is a condition which is diagnosed occasionally as a serious heart ailment. Arrhythmias, such as paroxysmal tachycardia, auricular fibrillation, and occasionally premature beats (extra systoles) are frequently the cause of alarm. The etiology producing such conditions determines the seriousness of the attack. Acute pulmonary edema, acute coronary occlusion, severe angina pectoris, complete block with ventricular asystole, acute congestive failure, and paroxysmal dyspnea of cardiac origin are a few of the emergencies which require immediate attention and proper, well-directed treatment.

Not infrequently subacute bacterial endocarditis, auricular fibrillation, subendocardial infarcts resulting from acute coronary occlusion, and occasionally mitral stenosis are the origin of peripheral vascular episodes (cerebral, pulmonary, renal, splenic, mesenteric, etc.) and account for many vascular emergencies.

An acute or paroxysmal attack of dyspnea is not infrequently a difficult differential diagnosis: is it bronchial or cardiac in origin? An individual with pulmonary emphysema may have difficult breathing on the least exertion and yet have an essentially normal heart. Paroxysmal dyspnea that comes in the after part of the night, which causes the individual to sit upright, and which is associated with a cough and a rattle in his throat, should be considered a serious heart condition until proved otherwise. Chest pain may be the result of many conditions other than those of the heart, and many times repeated examinations are required to determine the cause. However, if the pain is substernal it should be considered cardiac in origin and treated as such until further study proves that it is not. Sudden epigastric pain (so-called acute indigestion) coming on at rest especially in the early morning, and associated with vomiting, profuse perspiration, and cold extremities, should be treated as a heart emergency because these symptoms usually are indicative of acute coronary occlusion.

Various drugs are used in the treatment of heart emergencies, many of which have no proven value. Morphine, adrenalin, vasodilators, digitalis, caffeine, etc., have established their value in this group of cases.

Physicians should remember that in heart emergencies instruments of precision, such as the electrocardiograph, x-ray, etc., can be depended on for little assistance because usually the diagnosis must be made when these instruments are

not at hand. The physician must depend on his clinical judgment and his ability to make a correct diagnosis. Immediate and proper treatment is often life-saving.

STERILIZATION

A woman of our acquaintance, in talking of certain phases of the eugenics problem, remarked that, "It is amazing the misconception so many have regarding sterilization. I have been in many groups where the subject has been discussed and have noted that the average person is of the opinion that sterilization means emasculation." We, too, have noted a similar belief on the part of many.

A booklet of uncommon interest recently reached our desk. "Twenty-eight Years of Sterilization in California" is its title. The more than forty pages of this digest afford material for an intensive study of the problem.

The present law was enacted in 1919, since which time almost as many residents of California have been sterilized as in all the other states put together.

The operations used are vasectomy and salpingectomy, each of which has the advantage of being a comparatively simple surgical procedure and of minimum danger to the patient. Neither operation in any way unsexes the patient.

The California law applies only to the insane and the feeble-minded. About 45% of insane persons committed to state institutions are ultimately released and returned to their homes, though, of course, this does not apply to the feeble-minded. The average age of those operated upon is thirty. In the twenty-eight-year period, 5,933 men and 5,551 women have been sterilized.

Among the insane group, schizophrenic patients predominate and it is in this group that so many are returned to their homes. And it is also found that the offspring of schizophrenics are prone to develop the disease, the experience in California being that about 50% are so affected.

It is estimated that in the United States some 700,000 persons are committed to jails and prisons. Mental disease and mental deficiency are commonly found in this group. Numerous illustrative cases are cited as sharing the ill effects of unrestricted procreation among this type. The Juke family is, of course, mentioned. Another case is cited, that of an illiterate laborer who never had earned more than \$75 in any month, was the father of twelve children, was drawing \$122.50 per month as relief and was patiently awaiting the expected arrival of his thirteenth child in the hope that his relief check might be increased! Also there was cited the case in North Carolina, that of a man of 84, the father of 34 children, half of them living, none of whom was financially

able to help support the father. More than 100 grandchildren added much to the economic picture.

Many similar problems are discussed in this report, all of which merit much attention, but enough have been cited to attract attention to the need for some form of birth control in such cases. In these days, when so many families are on relief, it does seem that sterilization is called for in many instances. But of course the major problem would seem to be in the mental cases and in feebleminded subjects. An encouraging note is the fact that many of the former voluntarily seek sterilization; others, once the matter is carefully explained to them, acquiesce when sterilization is suggested. The booklet is a worthy addition to the literature on this subject and we highly commend it to all who may be interested in the problem of eugenics.

"FAIR ENOUGH"

The attention of Dr. Hugh Cabot and various "insurgents" in the medical profession is respectfully called to Westbrook Pegler's syndicated article under the above heading, published in the *Indianapolis Times* for August 11, 1938. Last year, at the time of the Ohio River flood, Westbrook Pegler spent some time in southern Indiana, talking to Indiana physicians who were in the thick of the fight against the scourges and pestilences that usually accompany floods, and later, in his column he complimented Indiana doctors for their ability, their humanitarianism, their eagerness to work untiringly to prevent conditions that would mean financial harvest for the physicians. He learned much of the regular doctor—his ideals, his philanthropy, his willingness to serve without thought of remuneration. Once more Westbrook Pegler comes to the defense of the medical profession and he exhibits a rare understanding of the whole situation. We reprint the entire article:

New York, Aug. 11.—"The problem of medical and surgical treatment for the masses is cluttered with undeserved pity for people who have convinced themselves that they can't pay the doctor for easing their pains or saving their lives, but could do so if they tried. The doctors of this country give away more free goods off their shelves than the members of any other profession, including the actors and musicians, who come next. They have their gyps and rotters, their publicity-crazy hams and ignoramuses, but they do more good for suffering humanity in critical moments than the members of any other calling.

"Of course, it will be argued that they should do this because they are in a position to. That is their job. But the fact is, nevertheless, that they do give this service, and it is a further fact that society doesn't appreciate the good they do.

"People overemphasize their mistakes of judgment or negligence, forgetting that a doctor's mistake is more likely to have fatal or, anyway,

dreadful consequences than a mistake by a plumber, a grocer or a journalist.

"There are many phases of the question, but I mean to stick to this one for today's lesson. I am thinking of those who think that \$200 is an outrageous price to pay for the removal of an appendix which has developed the menacing nature of a bomb in the patient's interior. The surgeon gets the victim into a hospital as quickly as possible, gives him a jab of something to relax him and in a very short time is delving around in his giblets without 50 cents on the line to pay for laundering his smock.

"So the patient gets well, and when the bad news comes he forgets that feeling as of a litter of porcupines frisking about in his abdomen, forgets how scared he was and his alarm for the security of his dependent family, and calls the doctor a burglar. Why, he makes only \$25 a week and so, instead of paying the doctor a dollar a week, as he would pay the installment man for the radio or sewing machine, his policy is to skip it entirely. He forgets, also, that if the surgeon hadn't done his stuff promptly and well, specialized stuff that nobody but a surgeon could have done, his family would be on the town right now.

"If a patient can pay small amounts to a co-operative over a spell of years for treatment which he may need in the future, he can just as well pay a doctor a stated amount each week over a long term for treatment which he has already received. But in too many cases he just won't, and the doctor is accused of bearing down on a man who can't afford to pay for the saving of his life but can manage somehow to come up with the price of many nonessentials.

"Many doctors nowadays serve patients in the public clinics who are able to pay reasonable professional rates for their treatment. In this way the doctor is compelled to rob his own family of the just rewards of his work so that other men's families may deadhead it. Patients lie about their income and pretend to be in tatters who ought to be told to decide which they value more, their money or their lives. And the ethics of the profession and sentimental sympathy for the invalid are such that if the patient were asked to stand for a frisk to prove his inability to pay, that would be a callous outrage.

"There is more or less larceny in all the human race, and this problem of medicine for the masses would be less difficult if those who can pay were prevented from appealing to public sympathy at the doctor's expense by mingling with the truly destitute."

TIME: October 4, 5 and 6, 1938.

PLACE: Indianapolis.

EVENT: Annual Session, Indiana State Medical Association.

Editorial Notes

Last call for hotel reservations for the annual convention, October 4, 5, 6. Of course, late comers will be assigned accommodations by the local committee, but it is quite a satisfaction to walk into a hotel, knowing that when you sign the register the room clerk will promptly call the bell boy, saying, "Show Dr. Hoosier to room so an so." We presume you mean to attend this convention, along with hundreds of other Indiana medics; it will be the biggest and best of a long list of successful annual gatherings.

At a recent meeting of the "official family" of the Association, we were accorded an unusual pleasure, that of having Dr. J. Rilus Eastman come up from his Brown County home to give his advice on matters of more than common importance. Dr. Eastman, the surviving member of a notable family of surgeons, retired from practice several years ago, due to illness; since that time, for a period of fifteen years, he had not attended any sort of medical conference, but the present occasion was deemed of such moment that he made the trip to Indianapolis. He literally was received with open arms by his confreres and we trust the reception was such that he may find it possible to drop in on our convention next month.

Another pre-convention look at the program for the Indianapolis meeting, the other day, confirmed the opinion that it will mean much to every one of our members to be present at all sessions. Time was when programs were made up in a hit-and-miss sort of fashion, but not these days! Our scientific program committee begins planning for the following year immediately after each annual session. They hold numerous meetings and see to it that the subject-matter throughout the session covers the entire field of medicine and surgery. Further, due to the fact that our annual conventions are known throughout the country as a series of distinct successes, our committee has no trouble in "signing up" the best of the speakers.

The suit filed by the Attorney General of the United States against the American Medical Association, the District of Columbia Medical Society, together with certain individuals, seems to have attracted the attention of the lay press to no small degree. We have noted several editorials on the subject in our metropolitan newspapers and in

each instance the editorial comment was very favorable to the medical profession. Did space permit, we would like to use several of these in our columns, but we will have to be content with the use of one from that widely read columnist, Westbrook Pegler, which appears on the editorial pages of this issue of *THE JOURNAL*. We shall be much interested in the developments of this case.

Rheumatic heart disease is one of the deadliest and most crippling afflictions of children of school age. Its annual mortality rate is seven times that of infantile paralysis during an epidemic, while every year it invisibly cripples thousands more. Compared to the explosiveness and the rapid pace of most childhood diseases, rheumatic heart disease is decidedly undramatic and unspectacular but is nonetheless triumphant in crippling the heart of the child. Rheumatic heart disease requires long continued care. One of the most effective means of combating it lies in its early recognition, for if it is unchecked it finally incapacitates the heart.

While attending the convention next month do not overlook two very important features, the scientific exhibit and the commercial displays; each is worth a few hours of your time. The scientific exhibit has grown in importance from year to year until it now has become a very worthwhile part of our annual conventions. It is well to bear in mind that this exhibit is the outgrowth of an idea developed by Dr. Frank B. Wynn, a former president of the Association. Dr. Wynn prevailed upon the American Medical Association to make such an exhibit a part of their annual program and since that time it has grown to such proportions as to make its housing a problem. The commercial exhibits are worth your while, both from the fact that they afford revenue to the society and are of such a nature that much valuable information may be had from them. Make a visit to these features a part of your program; you will find them of more than ordinary interest.

Venomous snakes are not commonly found in Indiana, yet we occasionally hear of some, here and there. A few weeks ago a visitor to the Indiana Dunes State Park was bitten by a rattlesnake, the incident causing considerable comment in the local press. We have met with an occasional "rattler" in our journeyings about the lakes of northern Indiana, but they are not often found in these parts. However, it is well to advise your touring patients to provide themselves with first-

aid treatment, a sterilized razor blade, a small bottle of iodine and some form of elastic to be used as a tourniquet. Of course they should be advised to consult a physician at the earliest possible moment.

With September comes the resumption of regular meetings for our county medical societies, most of which observe a vacation season of from two to three months. While good programs are prime requisites to good attendance and the maintenance of interest, it should be borne in mind that certain so-called economic problems are before us and that some time should be given to them. Never in the history of organized medicine has it been so important that we present a united, solid front as at the present time. Every eligible man in the county should be enrolled in his medical society. While it is true that the Association membership for 1938 is the highest in its history, it should be larger. Well over 3,000, it should be in the neighborhood of 3,500. While your local secretary can do much to boost this figure, it behooves every member to do his part. For one reason or another the Association never has endorsed a membership campaign, hence it is up to the local groups to carry on such work.

The *New Yorker* for July 23, 1938, tells of an abandoned New York building, erected in 1924 by a New York physician and some 200 of his friends, mostly physicians. The good doctor invested \$175,000; his friends added \$150,000, and after the exterior of the twenty-three story structure was completed, it was found that an additional half million would be required to complete the building. It still stands with the interior unfinished. The doctor lost his \$175,000 and his friends lost their \$150,000. The original idea was to erect a building which would be a combined hospital, sanitarium, and hotel, with accommodations for 400 hospital patients, 50 sanitarium patients, and 50 friends or relatives of patients. According to the *New Yorker's* reporter, the building has no plumbing, no elevators, "nothing of any interest at all except the contents of the cornerstone, which are movies of surgical operations, a set of smears of disease-producing bacteria, and a list of diseases which were incurable in 1924, the year of the cornerstone-laying. They're still incurable."

The July 23rd number of the *Journal of the American Medical Association* begins a new department, one that will meet with general favor we are sure. It is known as the "Student Section" and is to be mainly devoted to matters of interest to

medical students. As Editor Fishbein says, "the students, internes and residents of today are the practising physicians of tomorrow" and it is to their problems that the new department will cater. The section will appear once each month, the last number of the *Journal* in each month carrying the articles, and judging from those in the current section it is apparent that they will be readable and informative. This brings to mind our contention for years past that organized medicine will do well to cater to the medical students and recent graduates; we long have urged our county medical societies to line up the recent graduates and start them in the proper paths.

While we have not completed our check on the volume, we are prepared to state that the fifteenth edition of the American Medical Directory surpasses all previous efforts in getting out a book that contains about everything that one wants to know about the medical profession and its allied interests. Containing almost 189,000 names, it covers the entire country and its insular possessions as well as Canada. All recognized medical organizations are listed in the book, and the officers of all county medical societies are named. State medical organizations are given full mention, the official families being given in full. The constitution and by-laws of the American Medical Association is printed in the present issue, as are the medical laws of all states, the same applying to the various provinces of Canada. In short, the book is the most complete thing of the sort extant and the physician who wishes first-hand, reliable information will do well to provide himself with a copy.

That the recent ruling of the Indiana State Board of Health to the effect that eating places in Indiana would be inspected and graded was a needed measure is indicated by a report for the month of May. Of a total of 151 such places inspected, only 11 received a grading of "A"; 1 was awarded a rating of "B", and 139 were accorded the doubtful honor of being classed as "C". It is our understanding that these places are publicly to display their rating from the Board, hence it behooves the traveling, eating public to ascertain just what sort of place one is patronizing. As we have previously said, we are in full accord with this action of the Board, our only regret being that the lay press has failed to give it the publicity it merits. During the same month an analysis of popular beverages so much in demand in the summer season showed 22 of 25 samples of sodas to be illegal. Hamburger, that popular roadside sandwich, also came in for some questioning when it was found that of 20 samples analyzed,

just half were found to be illegal, not up to the Board's standards; these probably contained a meat "preservative" of the variety once commonly used to give an attractive color to the product, but one that is not conducive to the health interests of the consumer.

It is reported that several druggists (not registered pharmacists) in one of our northern Indiana cities, have been found guilty and fined on the charges of selling remedies containing harmful ingredients. It is said that these offenders had been warned by the State Board of Pharmacy, but that the warnings were disregarded. It seems that the Indiana Supreme Court has decided the question as to just what a drug store and a drug may be, making it clear that certain restrictions are advisable in the matter of the sale of drugs and various so-called remedies. At the same time the Board of Pharmacy advised that the sale of certain poisonous insecticides, disinfectants, etc., was to be made under certain restrictions, these not generally known to the public. Paris green, arsenate of lead and the like may be sold in the original packages, provided they are labeled with the name of a reputable manufacturer. The breaking of these original packages and selling the contents in smaller amounts is regarded as a violation of the law. The above actions of the Board of Pharmacy meet with our entire approval, but we feel there is a dire need for further legislation looking toward the stopping of the indiscriminate sale of poisonous products. Naturally, we hark back to that old enemy, one much discussed by us in times past, dinitrophenol. This dangerous product continues to be peddled over the counter to all who ask for it, even though it is known to be a source of danger, even causing death in several instances. The recently enacted Federal food and drug law will go far toward settling some of these vexatious problems, though it sorely fails to provide the protection we believe is needed. However, a slice is better than nothing, if we can not have the whole loaf.

Governor Townsend has appointed his committee to select a site for the construction of a tuberculosis hospital at some southern Indiana point, the hospital to cost \$650,000. Dr. Verne K. Harvey, Indiana Health Commissioner, Murray Auerbach, secretary of the Indiana Tuberculosis Association, L. A. Pittinger, president of the Ball State Teachers College, Thomas O'Mara, of Terre Haute, and Arthur H. Sapp, of Huntington, former president of Rotary International, are the committee members. THE JOURNAL compliments Governor Townsend on his selection of this committee, the group of men named being thoroughly capable of deciding

where this much needed institution should be located.

"Is this man violating the medical practice act of the State of Indiana?" asked a district head of a church when he called at headquarters office, a short time ago. He presented a copy of an advertisement taken from an eastern Indiana paper, which reads "Send one dollar to Reverend Blank (in an adjoining Ohio town) for receipt to end nervousness. Money returned if it fails." The District Superintendent stated that he had written the reverend gentleman and from him had received a reply, excerpts from which are quoted: "I will say that I am cashing in on what I know. If you are interested, answer the ad and find out. One of my men died and I was at the house and the doctor left the medicine that I am recommending in my ad, to end nervousness, and it worked fine. . . . I have been in several homes since I have been in ——— and the doctors have all left the same medicine that I am giving a receipt for for \$1.00. Dr. ———, at ——— charged me 5c apiece for the tablets and Dr. ———, at ———, 7c apiece. I can buy all I want for 75c a hundred. I am rendering a great service to the public, and will save them lots of suffering, and lots of money besides, if they will take advantage of what I know. I hope these few lines will satisfy your inquiry." An eastern Indiana citizen answered the ad of the erudite minister, not failing to enclose the one dollar note, and was later advised, through the United States mails, to get from his druggist "a bottle of 100 tablets of 1½ grains each phenobarbital." He mentioned several drug stores from which the tablets might be obtained and also offered his advice as to dosage. We should say, in answer to the question as to whether this constituted a violation of the medical law, that it does; not only that, but it violates every law presumably laid down for members of the clergy. More than that, it violates every principle of common decency. The man who calls himself a minister yet stoops to such low practice is a disgrace to the cloth and should summarily be unfrocked and dismissed from all church connection.

ARE YOUR PLANS MADE
TO BE IN INDIANAPOLIS
OCTOBER 4, 5, and 6, 1938?
YOU SHOULD NOT MISS
THIS YEAR'S CONVENTION.
MAKE YOUR HOTEL
RESERVATIONS EARLY,
AND BE THERE!



President's Page



During the year I have pointed out to you in the various issues of THE JOURNAL of the Indiana State Medical Association that the social forces now moving so rapidly in the United States are fundamental social phenomena. They are not related to political parties or to isolated small groups. They are much deeper than these and get to the very foundations of our social structure.

During the year I have frequently experienced a conflict of thought—conflict between thinking as a leader and the responsibility and duty to those whom I am leading. I was fearful lest as an individual I was thinking and acting ahead of the group, thereby defeating the purposes of effective leadership. As a result of my position as your leader, I had access to information and experience that is necessarily denied to you as a group, and I have become convinced that the mass thinking of society in this country regarding health matters has run ahead of the professional thinking. I am convinced that we must think and act swiftly and decisively if we are to regain the confidence of society in our ability to lead in the field of health. We must remember that we have been a favorite group in the social pattern—that such favoritism was bestowed upon us because society had confidence in us. But now society is questioning our leadership in health matters. When conservative newspapers of national importance such as the New York Times and the New York Herald Tribune, with the national daily press and the periodic press generally attacking our position, and when the president of the American Federation of Women's Clubs, the president of the Farm Women of America, the president of the Parents and Teachers Clubs of America, the president of the American Federation of Labor, the president of the Committee for Industrial Organization, representatives of the Amalgamated Clothing Workers, the United Mine Workers, and the Railway Brotherhoods openly accuse us of not having fulfilled our obligation, there must be something amiss. There can be no gainsaying that these agencies represent the great mass of social thinking and opinion in this country.

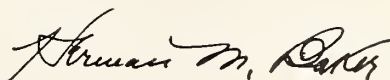
We, as physicians and health leaders, have recognized that many things were wrong. We have said that the thing was primarily economic. We have said that medical service was secondary to food, clothing, housing, fuel, and a job. We have recognized that there was a great lag between existing knowledge and the fact of its application, but haven't we failed to realize that we were moving too slowly? If I read the signs correctly, mass social thinking in this country is away beyond the stage of abstract discussion and is clamoring for direct action.

We dare not allow this problem to become a matter of political discussion, with all of the emotionalism that enters such discussion. It must be kept on a plane of sane, reasonable, and scientific discussion and action if we are going to accomplish anything at all. No great and lasting social changes have ever occurred, so far as my knowledge of history goes, in which there was not something beautiful or something precious lost. Generally speaking, however, these losses have been more than justified by the greater gain. Whether we are about to lose something fine or cherished, I do not know, but I have confidence that there is such knowledge and ingenuity in our profession today to work out the present problems without the sacrifice of any tradition or the lowering of any standards, if we attack the problem immediately.

At a meeting of the Executive Committee Sunday, August 6, the implications of the National Health Conference, the government suit against the American Medical Association and the District of Columbia Medical Society, and the discussions of the Republican National Committee of Health Insurance were discussed in detail, together with a large amount of confidential information as to the activities of certain other groups, and it was decided to call a special assembly of the Council, past presidents and delegates to the American Medical Association to meet with the Executive Committee for the purpose of discussing these problems and formulating policies by which the House of Delegates may be guided in its deliberations when it meets October 4.

This meeting was held in Indianapolis Wednesday, August 10. The president was instructed by this assembly to appoint a smaller study group which is to report back to this group before the time of the State Meeting in October. It is hoped that this small study group will be able to clarify the present situation and to make certain recommendations to the House of Delegates for its guidance in the consideration of the problems now confronting our profession.

May I ask all of you to carefully read all of the reports in this issue of THE JOURNAL and, if possible, read each of the monthly reports of the proceedings of the Executive Committee before coming to the State Meeting in October.



FUTURE MEDICAL PRACTICE STUDY

So that the House of Delegates will have something tangible and definite from which to work when it considers the question of future medical practice in this state and nation in view of the recent rising agitation in regard to medical services, a committee has been appointed to prepare and present a program for the consideration of the delegates when they meet in Indianapolis at the eighty-ninth annual session of the Indiana State Medical Association, October 4 to 6. Ideas, programs, plans, proposals, or suggestions as to what we in Indiana should do in view of national developments will be appreciated whether they come informally from individual physicians or as the result of formal county society resolutions. A special committee of the State Association has been appointed to receive, analyze, and make its recommendations from these proposals, and if anyone desires to be heard by this committee, he may obtain information as to the time and place of these committee hearings through the headquarters office.

In order that every doctor may know just what has happened and is happening, here is a report of the meetings and actions that have taken place to date:

A special joint meeting of the Council, the ex-presidents of the State Association and the Executive Committee, held in Indianapolis on August tenth, was attended by all members of the Executive Committee, ten of the thirteen councilors, eleven ex-presidents, the four state delegates to the A. M. A., the chairman of the Legislative Committee, and the acting chairman of the Bureau of Publicity. In addition, the following guests were present: Henry Cook, M.D., Flint, Michigan, president; H. A. Luce, M.D., Detroit, president-elect, and Paul R. Urmston, M.D., Bay City, Michigan, chairman of the Council, all of the Michigan State Medical Society.

Dr. M. A. Austin, chairman of the Council, made a short statement in regard to the purpose of the meeting, stating that the Vanderburgh County Medical Society had passed a resolution asking the president of the Indiana State Medical Association to appoint a committee to study the present national situation in regard to medical services and report to the House of Delegates at the meeting in October. Dr. Baker and the members of the Executive Committee felt that the entire situation should be taken up with the Council and the past presidents of the State Association in order that their opinions on the subject might be expressed. Dr. Baker then read the statement which appears on the President's Page in this issue of *THE JOURNAL*.

A lengthy discussion of the entire situation followed, some speaking for and some against the position taken by Dr. Baker.

The representatives of the Michigan State Medical Society presented a statement drawn up by the officers of the Michigan Society upon authority of the Council of the Michigan State Society which advocated definite action by that society.

The discussion was concluded by a statement by Dr. R. L. Sensenich, past president of the Association and a member of the Board of Trustees of the American Medical Association, giving the views of the American Medical Association in regard to this question. In general, Dr. Sensenich recommended a conservative approach to the problem.

At the close of the discussion the following motion was made by Dr. Forster:

"I move that a committee be appointed from this body to study this question and propose plans to combat the situation which has arisen regarding this question and report back to this body within thirty days."

In accordance with the motion, upon August 13, 1938, Dr. Baker appointed the following committee:

- C. A. NAFE, Indianapolis, chairman, Executive Committee.
- C. H. McCASKEY, Indianapolis member, Executive Committee.
- H. M. BAKER, Evansville, president.
- E. M. VAN BUSKIRK, Fort Wayne, president-elect.
- M. A. AUSTIN, Anderson, chairman of the Council.
- F. M. GASTINEAU, Indianapolis, member, Bureau of Publicity.
- N. M. BEATTY, Indianapolis, chairman, Legislative Committee.
- O. O. ALEXANDER, Terre Haute, councilor, Fifth District.
- W. C. McFADDEN, Shelbyville.
- ALFRED H. ELLISON, South Bend.
- R. H. BEESON, Muncie.
- J. T. OLIPHANT, Farmersburg.

Ex-officio members:

- A. F. WEYERBACHER, Indianapolis, treasurer.
- E. M. SHANKLIN, Hammond, editor of *THE JOURNAL*.
- ALBERT STUMP, Indianapolis, attorney for the Association.

The first meeting of the above sub-committee was held on August 24, 1938, at the Columbia Club in Indianapolis.

All physicians having suggestions are asked to mail them to headquarters office, and all members having any plans and desiring to be heard by the sub-committee are invited and *urged* to get in touch with the headquarters office and make arrangements as to when they may be heard by the sub-committee.

Subsequent meetings are to be called by the sub-committee, and after a tentative program is drawn up, this will be presented to the large committee composed of the councilors, ex-presidents and the Executive Committee, at a second meeting of that committee which will be held some time in September. It is hoped that a definite program of suggestions will be formulated for consideration by the House of Delegates.

DIVISION OF NUTRITION ESTABLISHED BY THE INDIANA STATE BOARD OF HEALTH

On August 1, 1938, the Bureau of Maternal and Child-Health of the Indiana State Board of Health, announced the establishment of a Division of Nutrition. This division expands the activities of the Bureau through its already established Division of Dental Hygiene, Division of Child Psychiatry, Division of Health and Physical Education, Division of Visual Education, Division of Postgraduate Education in Obstetrics and Pediatrics, and the Division of County Public Health Nursing for Child-Health Services.

MISS NESBITT IN CHARGE

Miss Estelle Nesbitt, of New Richmond, Indiana, will be in charge of the newly established nutrition division. Miss Nesbitt graduated from the Department of Home Economics at the University of Illinois, with a major in dietetics and nutrition. Having chosen hospital dietetics as her field of endeavor, she went to the Johns Hopkins Hospital, Baltimore, Maryland, for the required training and immediately on finishing the course she joined the dietary staff under Dr. Ruth Wheeler at the State University of Iowa. After a year and a half as assistant dietitian at the University of Iowa, Miss Nesbitt went to Seattle, Washington, to take complete charge of the food problem at Children's Orthopedic Hospital there. Two years later she was chosen for a larger problem as chief dietitian at the City of Chicago Municipal Tuberculosis Sanitarium, which position she held from 1927 to 1931. In June, 1931, Miss Nesbitt went to the Neuro-psychiatric Institute and Hospital at Hartford, Connecticut, where she assisted with the general reorganization of an old institution. In November, 1933, she accepted a four-year appointment as chief dietitian at Peiping Union Medical College, a Rockefeller Foundation project at Peiping, China. Here emphasis was placed on the teaching of dietetics and nutrition to Chinese student nurses, student dietitians, medical students, postgraduate nurses and nurse dietitians.

ACTIVITIES OF DIVISION

In its entirety the nutrition service in a state health department should be expected to include the following activities:

1. Cooperate with and extend into the health field, without duplication, the work of other agencies in the state primarily interested in other phases of dietetics and nutrition.
2. Give detailed instruction, advise on, and assist with the nutritional problems confronting the public health nurses.
3. Work in cooperation with relief and welfare workers in solving the nutritional needs of their clients.

4. Handle the details in regard to proper nutrition in maternity, infant, and preschool clinics and conferences.

5. Prepare, assemble, and make available educational material such as radio broadcasts, pamphlets, and exhibits.

6. Cooperate with the local health officers in organizing a specific program to meet any special nutritional problems in the community, such as goitre, nutritional edema, etc.

7. Make proper recommendations for carrying out the nutritional side of the dental hygiene demonstration in Southern Indiana.

8. Give practical and detailed nutritional advice in cooperation with the tuberculosis control program.

9. Give assistance with nutritional problems to organizations such as hospitals, health camps, etc., as requested.

10. Work in cooperation with the educational system and other interested agencies in teaching the health aspects of nutrition to teachers, parents, and school children.

11. Lectures to interested groups of lay people such as parent-teacher organizations, women's clubs, etc., not reached by other organizations in the state.

12. Cooperate with the local county medical society and assist with therapeutic diet problems when requested by physicians.

13. Collect data on the prevalence of nutritional diseases in the state.

PRESENT PLANS

For the present it is planned to confine the activities of the nutrition service for the most part to a program in cooperation with the demonstration branch of the dental health program in District Health Unit No. 4, which includes the counties of Switzerland, Ohio, Dearborn, Ripley, and Jefferson. During the month of November a series of nutrition institutes will be conducted for the instruction of public health nurses.

It is the plan of the nutrition service to formulate a double purpose program. First, the purpose will be to discover those children with nutritional defects and to correct those defects when discovered. The second purpose will be concerned with the promotion of normal or even optimum nutrition for expectant mothers and growing children so that nutritional defects do not occur.

Nutritional defects are discovered by physicians, dentists, nurses, and others who come in direct contact with the individual. Usually the correction will be attempted by instruction on an individual basis by the public health nurse with the nutritionist acting as a consultant.

The program for promotion of better child nutrition in the community is to be an educational one, organized on a continuous and long-time basis, the principle of such a program being the development of proper dietary habits as the keystone of the improved nutritional state of the community. This is best promoted as part of the health program in the public schools with the nutritionist acting as a consultant to the teacher. The school lunch may be an integral part of the educational program within the school.

Instruction in diet for the expectant mother belongs to special groups. Special emphasis must be paid to the teaching of proper dietary habits of the preschool children from two to six years of age—a period when the child is too apt to be left to his own resources.

Parent education through talks and demonstrations, and community education through newspapers, bulletins, posters, exhibits, etc., should be effective in making families believe in and practice better dietary habits.

ADVISORY COUNCIL

The following named state leaders will act as a nutrition advisory council to the Director of the Division of Nutrition:

Miss Lute Trout, Director of Department of Dietetics, Indiana University Medical Center, and Assistant Professor of Nutrition, School of Home Economics of Indiana University.

Dr. Cecelia Shuck, Professor of Nutrition, School of Home Economics, Purdue University.

Miss Lela Gaddis, State Leader of Home Demonstration Agents, Home Economics Extension Service, Purdue University.

Miss Lelia C. Ogle, Regional Chief of Home Economics in Security Administration, Indianapolis.

Miss Agnes Watson, State Supervisor of Vocational Home Economics, State Department of Education, Indianapolis.

Miss Mildred Arnold, Director of the Children's Division of the Indiana State Welfare Department, Indianapolis.

Miss Nell B. Massey, State Dietitian, Indiana State Welfare Department, Indianapolis.

Miss Marie L. Matushka, Director of Nutrition, Indianapolis.

Thurman B. Rice, M.D., Director, Division of Health and Physical Education of State Board of Health, Indianapolis.

Mary H. Westfall, D.D.S., Director of Dental Health Program, Bureau of Maternal and Child Health, Indiana State Board of Health, Indianapolis.

Under the Capitol Dome

PLANS FOR NEW TUBERCULOSIS HOSPITAL

Plans to establish a new tuberculosis hospital in southern Indiana are being pushed forward by the state administration following authorization of the project by the recent special session of the General Assembly. Governor M. Clifford Townsend has appointed a commission to select a site for the new institution, and the Public Works Administration has made an allotment to finance forty-five per cent of the cost. Members of the site commission recently heard representatives of various communities seeking the institution and afterwards visited the proffered sites. Members of the commission are Arthur H. Sapp of Huntington, chairman; Thomas O'Mara, of Terre Haute, vice chairman; Murray A. Auerbach of Indianapolis, secretary of the Indiana Tuberculosis Association, secretary; L. A. Pittenger, president of the Ball State Teachers' College at Muncie, and Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

NEW STATE BOARD OF HEALTH BUILDING

Plans and specifications for the new Indiana State Board of Health building which will be erected at the Indiana University Medical Center will be completed about October 1 and bids for construction will be received as quickly after that date as possible, according to Dr. Verne K. Harvey, board secretary. J. H. Wildermuth, Gary architect, is drawing the plans. Public Works Administration officials already have made an allotment of \$146,454, representing forty-five per cent of the construction cost. Remainder will be paid by the state government. Preliminary estimate of the building cost was set at \$322,000, but the PWA allotment was based upon \$325,000.

The building, which will be a completely modern office and laboratory structure, will be of reinforced concrete construction faced with light colored brick and trimmed with Indiana limestone to harmonize with other buildings in the Medical Center. In size it will be 150 feet by fifty-five feet and will comprise three floors and basement. An auditorium in form of a T will be set off from the main building and it will be used for official meetings and for sessions of health organizations which are closely allied with the health department in public health responsibilities. The building will be fireproof with all the modern safety devices. A special feature will be a safety vault in which all state vital statistics records will be kept.

Laboratory facilities will be a considerable improvement over those in the present Statehouse annex where the health department is housed. All

Complete program for the
Southern Indiana Postgraduate Course
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laboratories will have northern exposure lighting and waste material from infectious laboratory specimens will be disposed by incineration. Disposal is now a serious problem, Dr. Harvey pointed out, because the only available means now is through the regular city disposal system which entails considerable handling.

Location of the health department at the Medical Center will have another advantage. It will give the department staff access to the Medical Center library without inconvenience. Laboratory work of both the Medical Center and health department can be more closely coordinated and health activities of the two units also can be better coordinated, Dr. Harvey pointed out. At the same time it will prove beneficial to undergraduate medical students to have the health board closely located to the school because they can study at first hand preventive medicine and public health activities in actual operation.

Dr. Harvey emphasized that change in the location of the Indiana State Board of Health will in no way affect its governmental status, and it will remain a branch of the administrative division of the state governmental organization. Most of the work of the board is professional and technical and for that reason is more closely allied with work of the Medical Center than with other government operations. Its only contact with the Statehouse is through auditing and financial operations.

The Indiana State Board of Medical Registration and Examination restored the license of Dr. Peter C. Berns of Linton which was revoked by the board July, 1937.

Licenses will be issued by the Indiana State Board of Medical Registration and Examination to 124 applicants who successfully passed the board's examination conducted last June. Of these, 122 were M.D.'s and two D.O.'s.

A letter of information concerning the examination of food handlers has been sent to all Indiana health officers and canners by the Indiana State Board of Health, Dr. Verne K. Harvey, secretary, announced. The letter said:

Several questions regarding the examination of food handlers have been presented to us for answer. It is hoped the following questions and answers will satisfactorily give you the interpretation of the regulations that we believe should be applied.

Question 1: Who are required to have food handlers certificates?

Answer: This requirement for examination applies only to those who will actually be handling the food.

Question 2: May applicants be put to work before completion of the health certificate pending receipt of reports on laboratory specimens that may have been submitted?

Answer: This would violate the spirit of the regulation. No food handler is to work until the certificate is completed.

Question 3: How extensive should this examination be?

Answer: The State Board of Health asks merely that the physician satisfy himself that the applicant is free from a communicable disease in an infectious state.

Question 4: Should blood tests for syphilis be performed on each patient?

Answer: A physician may feel that in order to exclude syphilis in the infectious stage it may be necessary to have a blood test made. However, this is not required by the State Board of Health for each patient, but is left to the judgment of the physician. Some local health boards in the State, however, do make this blood test on each patient a requirement and where that is the case, it must be complied with.

Question 5: Who should pay for the serological tests?

Answer: When the applicant is able to afford a blood examination, it should be done in a private laboratory. If the examining physician believes the applicant financially unable to pay for the test, it will be done by the State Board of Health Laboratory free of charge.

Question 6: Should an applicant with a positive blood test be excluded from employment?

Answer: A positive blood test does not mean the applicant has syphilis in an infectious state. Only a physician can interpret this blood test, and it is up to him to determine whether or not a positive test means the applicant has syphilis in a stage that it might be communicated to others. Infectiousness is the criterion to be applied in deciding whether a person should be denied employment, rather than mere presence of a positive blood test.

Question 7: Where may the blank health certificates for food handlers be obtained?

Answer: These blank certificates should be obtained from the County or City Health Officer, both of whom should have a supply on hand.

Question 8: Who may make the physical examinations of food handlers?

Answer: Any legally qualified and licensed physician of the patient's choice.

Question 9: What charge should be made for the examination?

Answer: The fee for the examination is purely a matter to be decided between the physician and the patient.

The Indiana State Board of Health will be glad to answer any other questions you may have concerning this certification of food handlers.

Very truly yours,

VERNE K. HARVEY, M.D.,

Director Indiana State Board of Health.

Deaths

JAMES O. RHEA, M.D., of Linden, died July thirtieth, aged sixty-three years. He graduated from the Medical College of Indiana, Indianapolis, in 1902.

CLARENCE LEE MARLATT, M.D., of Indianapolis, died July thirty-first, aged sixty-three years. Dr. Marlatt graduated from the Central College of P. and S., Indianapolis, in 1897.

JOHN W. SNIDER, M.D., retired physician of Fairland, died August sixth, aged ninety-three years. Dr. Snider had practiced at Fairland for sixty years. He was a graduate of Rush Medical College, University of Chicago, in 1870.

DANIEL F. RANDOLPH, M.D., of Waldron, died July thirteenth, aged eighty-four years. Dr. Randolph had practiced in Waldron for twenty-five years. He retired from active practice in 1908. He graduated from the Medical College of Indiana, Indianapolis, in 1891.

DR. HERBERT S. LEACH, prominent Sullivan dentist, was killed in an aeroplane accident near French Lick, July twenty-eighth. Dr. Leach was forty-six years old, and had been a member of the dental section of the Sullivan County Medical Society since 1920, when he first began his practice there. He had given many talks before the society upon his hobbies, astronomy and flying.

Correspondence

August 5, 1938

To the Editor:

There has been a Mr. J. H. Day who has been selling a belt of some kind which is supposed to be a cure for neuritis, etc., and he has been using the name of the Methodist Hospital of Indianapolis.

He has been making extraordinary statements not only as to the cures resulting from the use of the belt but that he personally receives no financial benefit from the sale and that all of the money goes to the Methodist Hospital.

I am writing to you officially to let you know that the Hospital has authorized no one to sell anything, and certainly nothing so foolish as a belt to cure neuritis. We will appreciate it if you will give whatever publicity is at your disposal to this in order that this man may be reported to the police.

Yours very truly,

JOHN G. BENSON, M.D.
General Superintendent,
Indianapolis Methodist Hospital.

News Notes

Dr. Fred C. Dilley, of Brazil, has been made president of the national order of Eagles.

Dr. Kenneth I. Sheek has opened offices in Greenwood, where he will conduct a general practice.

Miss Gladys Culp, of Francesville, and Dr. C. E. Johnson, of Rensselaer, were married July twenty-eighth.

Miss Esther Whitson, nurse at the Bartholomew County Hospital, and Dr. A. M. Kirkpatrick, of Columbus, were married August tenth.

Miss Margaret Ellen Nichols, of Fort Wayne, and Dr. Lawrence W. Mueller, of Fort Wayne, were married July sixteenth.

A. G. Long, M.D., has announced the opening of his laboratory at 203 Fountain Square Theatre Building, Indianapolis. Dr. Long's practice is limited to clinical pathology.

Dr. F. Dale Johnson, of Cayuga, is now associated with Dr. A. S. Faulkner in the practice of medicine at Waynetown.

Dr. Edward Hoffman of Cincinnati has located in Aurora, where he will conduct a general practice. Dr. Hoffman will also serve on the staff of the Dillsboro sanitarium.

Dr. C. O. Schoier, of Jasper, has retired from active practice and has turned his office and equipment over to Dr. G. L. Richey, who will continue the practice.

Dr. Clayton L. Rice has opened an office in the Masonic Temple at Logansport. He will conduct a general practice with special attention to genitourinary diseases.

Dr. Donald L. Lashley has opened offices in Tell City, where he will conduct a general practice. Dr. B. F. Lally also has opened his office in Tell City, being associated with Dr. N. A. James.

Dr. L. J. Hillis has opened offices in Logansport, where he will conduct a general practice. Dr. Hillis graduated from the Indiana University School of Medicine in 1937 and has completed an internship at the Indianapolis City Hospital.

Dr. F. D. Allhands, who has been located in Wingate for the past forty years, is retiring from active practice. Dr. C. G. Parker has purchased Dr. Allhands' residence and office and is taking over his practice.

An additional psychiatrist, Dr. Lillian Moulton, has been named to serve on the staff of the Central State Hospital. Dr. Moulton has been a member of the staff of the Danvers State Hospital in Massachusetts.

The medical staff of the Indianapolis Methodist Hospital held their annual outing, July twentieth, at the Meridian Hills Country Club, with more than 225 members, their wives and friends participating in games, swimming, bridge and golf.

Dr. E. B. Jewell, of Logansport, attended the meeting of the Illinois Radiological Society, July twenty-fourth, when he presented a paper on "X-ray Diagnosis of Chest Diseases."

The fourth annual meeting of the Mississippi Valley Medical Society will be held at Hannibal, Missouri, September 28, 29, 30, 1938. Complete program may be obtained from the secretary, Dr. Harold Swanberg, 209 W. C. U. Building, Quincy, Illinois.

Members of the Indiana Medical School class of 1903 held a reunion at the summer home of Dr. W. S. Coleman on Sugar Creek, near Carthage, July twenty-eighth. This was the thirty-fifth reunion of the group.

Martinsville physicians have adopted the practice of closing their offices on Wednesday afternoons and evenings. Arrangements have been made through the Memorial Hospital to care for emergency cases.

Dr. and Mrs. R. Robert Richardson have moved to Fort Wayne, where Dr. Richardson will specialize in anesthesia. Dr. Richardson practiced in Monon a few years ago, and has been associated with the Lahey Clinic in Boston since 1936.

The physicians of Fortville have had published in the Fortville *Tribune* a fee schedule, including the following: Office calls and medicine, \$1.50; town calls, day time \$2.00, night time \$2.50; country calls, first mile \$2.00, 3 to 5 miles \$3.00, 5 to 10 miles \$4.00; obstetrical cases, \$35, including prenatal care excepting medicine. Intravenous medication: neo-arsphenamine, \$3.00; bismuth, \$2.00; all serums not less than \$1.00.

Dr. George W. Kohlstaedt, of Indianapolis, has been elected president of the Indianapolis Board of Health to succeed Dr. M. Joseph Barry, who has served since 1933. Mr. Frank G. Laird was made vice-president, succeeding Dr. L. A. Ensinger, and Dr. Herman G. Morgan was re-elected secretary.

Dr. George W. Willison, graduate of the class of 1934, Indiana University School of Medicine, has become associated with Dr. Herman M. Baker of Evansville in the practice of internal medicine. Dr. Willison spent two years at Philadelphia General Hospital as an interne and was at the Lahey Clinic as a fellow in medicine until August first of this year.



Dr. Kelly

Wendell C. Kelly, M.D., who graduated from Indiana University School of Medicine in 1936 and did postgraduate work in public health administration at the University of Kentucky, has assumed duties as chief of the Bureau of Venereal Disease Control of the Indiana State Board of Health. Dr. Kelly began his duties July first. For the year previous he had been district director for local health work with the Indiana State Board of Health.

The twenty-third annual meeting of the American Association of Railway Surgeons will be held at the Palmer House, Chicago, September 19 to 23, 1938. All physicians and surgeons are invited to attend the session of this meeting as guests of the organization. There will be no registration fee to non-member guests who are physicians. Complete program may be obtained from Mr. A. G. Park, American Association of Railway Surgeons, Palmer House, Chicago, Ill.

The American Board of Internal Medicine, Inc., will hold written examinations for certification in various parts of the United States on Monday, October 17, 1938, and on Monday, February 20, 1939. Formal application must be received by the Secretary before September 15, 1938, for the October examination and on or before January first for the February examination. Application forms may be obtained from William S. Middleton, M.D., secretary, 1301 University Avenue, Madison, Wisconsin.

Drs. Parvin M. Davis and D. F. Davis, of New Albany, have awarded contracts for the construction of a private office building on the northeast corner of East Spring and Sixth Streets. The

building will be one story and will contain a reception room, secretary's room, consultation and treatment rooms, laboratory, dark room, x-ray room, operating room for minor surgery, and detention rooms. The building will be of brick faced with Bedford stone, and will be completely fire-proof.

The eleventh annual Graduate Fortnight of the New York Academy of Medicine will be held October 24 to November 4, 1938, with evening sessions at the Academy and clinical programs in hospitals. Registration is limited to the medical profession. The general subject this year will be "Diseases of the Blood and Blood-forming Organs." A complete program may be obtained from the New York Academy of Medicine, 2 East 103rd Street, New York City.

The seventeenth annual scientific and clinical session of the American Congress of Physical Therapy will be held cooperatively with the twenty-second convention of the American Occupational Therapy Association, September 12 to 15, 1938, at the Palmer House in Chicago. A seminar in physical therapy for physicians and technicians will be held September 7 to 10. Information concerning the convention and the seminar may be obtained by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

Last fall the Mississippi Valley Medical Society announced an essay contest for the best unpublished essay on a subject of practical and applicable value to the general practitioner of medicine. The winner is Dr. I. C. Brill, of Portland, Oregon, who won the \$100 award for his contribution, "Failure of the Circulation: Types and Treatment." Dr. Brill will address the society on the subject of his essay at the annual meeting in Hannibal, Missouri, September 28 to 30.

The Abbott Laboratories of North Chicago, Illinois, will dedicate their new research building October seventh. Speakers for the event will include Dr. Karl T. Compton, president of the Massachusetts Institute of Technology; Dr. Herbert M. Evans of the University of California; Dr. Thomas Parran, Surgeon General of the U.S.P.H. Service; Dr. Roger Adams, of the Department of Chemistry, University of Illinois; Dr. Harrison E. Howe, editor of Industrial and Engineering Chemistry; Dr. George D. Beal, Assistant Director of the Mellon Institute; Dr. Morris Fishbein, editor of the Journal of the A.M.A., and representatives of the Abbott Laboratories, including Dr. Ernest H. Volwiler, Mr. S. DeWitt Clough, and Mr. E. H. Ravenscroft.

MEDICAL AND DENTAL RESERVE OFFICER TRAINING

A medico-dental military inactive status training course will be held at Cleveland, Ohio, during the two weeks of October 3 to 15, 1938. Eight Cleveland hospitals, the Western Reserve University, and the Academy of Medicine are cooperating in a program given separately for medical and dental reserve officers in the mornings. Military instruction for all officers will be given in the afternoons and certain evenings and will include special lectures, practical demonstrations of individual and organizational training, leadership and War Department training films. One hundred hours inactive duty credit will be granted to all Reserve officers who complete the course; proportionate credit will be given for partial attendance. Enquiries as to registration, schedules, hotel rates, etc., should be addressed to Headquarters Organized Reserves, 538 Federal Building, Cleveland, Ohio.

U. S. NAVY MEDICAL CORPS

Commissions—Internships—Postgraduate Courses

The Medical Corps of the United States Navy offers a number of internships and commissions to graduates of class "A" medical schools. Examinations will begin on November 7, 1938, and applications should be on file at least one month prior to that date.

Qualified candidates who have completed internships in civilian hospitals will be commissioned as Assistant Surgeons with the rank of Lieutenant (junior grade) and assigned to the Naval Medical School, Washington, D. C., for a postgraduate course of instruction.

Senior medical students who qualify for appointments to internships in Naval Hospitals will be appointed Acting Assistant Surgeons with the rank of Lieutenant (junior grade) for temporary service during the intern year, and upon satisfactory completion of internship will be allowed to appear for competitive examination for permanent appointment.

Candidates must be United States citizens between the ages of 21 and 32 years at the time of appointment.

Further particulars may be obtained from the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

MEDICO-MILITARY TRAINING COURSE AT MAYO FOUNDATION

The tenth annual Inactive Status Training Course for Medical Department Reservists of the Army and Navy will be held at the Mayo Foundation, Rochester, Minnesota, October 3d to 15th. The general plan of former years will be followed. Special work in clinics and hospitals will be offered during the morning hours for those asking special assignments. Presentations of carefully selected subjects in military medicine are sched-

uled for the morning, afternoon, and evening hours. There will be appropriate sections or special courses for officers of the Dental and Veterinary Corps. The school program for the last three days of the meeting, i. e., October 13th, 14th, and 15th, is merged with that of the Association of Military Surgeons of the United States. The Surgeons General of the Army, the Navy, and the Public Health Service will attend and participate. Outstanding medical officers from other nations will attend. The Commanding Generals of both the Sixth and Seventh Corps Areas have signified their intention of being present.

All Medical Department Reservists are eligible for enrollment. Approved applicants will be enrolled upon the recommendation of the Surgeon of the Seventh Corps Area or the Surgeon of the Ninth Naval District. Applications should be made at an early date and should be forwarded through the respective Reserve headquarters of the officer concerned.

ANNOUNCEMENT OF POSTGRADUATE COURSE IN OBSTETRICS TO BE GIVEN AT INDIANA UNIVERSITY SCHOOL OF MEDICINE

In the October issue of *THE JOURNAL* of the Indiana State Medical Association, the Department of Obstetrics of Indiana University School of Medicine, cooperating with the Indiana State Medical Association, will announce in detail the plans for carrying forth an intensive postgraduate course in obstetrics. This course will be in the form of two-week courses given regularly throughout nine months of the year for physicians of the Indiana State Medical Association. The general plan is to offer to four physicians at each session an intensive study in obstetrics and pediatrics. While attending these courses, these postgraduate students will reside at the Coleman Hospital at the Indiana University Medical Center.

Complete announcement as to the method of enrollment and the contents of the courses will appear in the October issue of *THE JOURNAL*. There will be no charge to the physicians for maintenance or tuition during these two-week courses.

It is hoped that by offering such courses the rural physicians will take advantage of the opportunity to avail themselves of this postgraduate work in obstetrics.

RESOLUTION IN REGARD TO LICENSES FOR FOREIGN PHYSICIANS

At the meeting of the American Medical Association in San Francisco the House of Delegates adopted the following resolution in regard to licensing foreign physicians:

WHEREAS, The license to practice medicine and surgery in many countries is limited strictly to citizens of these countries; and

WHEREAS, In addition to holding full citizenship, each applicant is required in several of these countries

to show that his medical education was pursued and completed in said countries; and

WHEREAS, Many foreign graduates in medicine and surgery in increasing numbers are seeking admittance to the practice of medicine in these United States; and

WHEREAS, In order to convey adequately to these applicants a full and satisfactory knowledge of the American conception of patriotism and of ethical ideals in medicine, it is necessary that a period of residence be required; therefore be it

Resolved, That in addition to the requirements for foreign graduates, as outlined in a resolution adopted by the House of Delegates for the American Medical Association in 1936, it is highly desirable that an additional requirement of full citizenship in the United States of America be demanded; and be it further

Resolved, That the House of Delegates of the American Medical Association approve the foregoing and that a copy be sent to the properly constituted officers of each examining board of the United States and to the Federation of State Medical Boards, with the request that they consider seriously urgent need for the adoption of such rules and/or legislation necessary to put the purposes of these resolutions into effect.

INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION MEETING IN PHILADELPHIA

The twenty-third International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the public auditorium of Philadelphia, Pennsylvania, October 31, November 1, 2, 3 and 4, 1938. All scientific and clinical sessions will take place in the auditorium. Hotel headquarters will be the Benjamin Franklin Hotel.

The members of the medical profession of Philadelphia are correlating for the clinics an abundance of hospital material representing various types of pathological conditions which will be discussed by the contributors to the program.

In the neighborhood of eighty distinguished teachers and clinicians will appear on the program, a tentative list of which may be found on page xxvi of the advertising section of this *JOURNAL*. The subjects and speakers have been selected to consider practically all the subjects of greatest interest to the medical profession in general.

A full program of scientific and clinical sessions will take place every day and evening of the Assembly, starting each morning at 8:00 o'clock. On account of the fullness of the program, restaurant service will be available at the auditorium at moderate prices.

The members of the profession are urged to bring their ladies with them, as a very excellent program is being arranged for their benefit by the Ladies' Committee. Philadelphia has many places of historic and other interests, which will make this year's program especially attractive to them.

Pre-assembly and post-assembly clinics will be held in the Philadelphia hospitals on Saturday, October 29, and Saturday, November 5.

It is important that you make your hotel reservation early by writing Mr. Thomas E. Willis, Chairman of the Hotel Committee, Chamber of

Commerce Building, Twelfth and Walnut Streets, Philadelphia, Pa.

The Association, through its officers and members of the Program Committee, extend a very hearty invitation to all members of the profession in good standing in their state and provincial societies to attend the Assembly. The registration fee is \$5.00.

DR. ELLIOTT P. JOSLIN, President,
Boston, Mass.
DR. GEORGE W. CRILE, Chairman,
Program Committee, Cleveland, Ohio.
DR. WILLIAM B. PECK, Managing
Director, Freeport, Ill.

SHORT COURSES IN TUBERCULOSIS

The Indiana Tuberculosis Association again offers short courses in tuberculosis to the physicians of Indiana. In order to make it possible for the physicians to attend without much loss of time, several sanatoria of the state will be used as teaching centers. However, any one wishing to attend the course may select any place preferred. Only one afternoon and evening will be devoted to the work in each location.

The purpose of the course is to acquaint the physicians with recent progress in the treatment of tuberculosis.

The Institute will follow the round table method, each topic being presented briefly by the instructor, allowing most of the period to be devoted to questions and answers. In addition, part of the time will be devoted to clinics and demonstrations. Splendid clinical material for the work will be available. The program is as follows:

1:00 to 3:00 P.M. Demonstration of Clinical Tuberculosis

1. Mantoux Tests
2. Laboratory Methods
3. Physical Diagnosis

3:00 to 5:00 P.M.

1. X-ray Interpretation
2. Collapse Therapy (a) Indication and Contra-Indication (b) Demonstration of Pneumothorax and Fluoroscopy (c) Artificial and Spontaneous Pneumothorax (d) Thoracentesis

6:00 P.M. Dinner—Followed by Evening Session

The short course will be held at the following institutions on the dates indicated:

St. Edward's Hospital, New Albany, Nov. 16
William Ross Sanatorium, Lafayette, Sept. 9
Sunnyside Sanatorium, Indianapolis, October 12
Boehne Tuberculosis Hospital, Evansville, October 12
Lake County Tuberculosis Sanatorium, Crown Point, October 13
Healthwin Sanatorium, South Bend, October 18
Hillcrest Tuberculosis Hospital, Vincennes, October 18

Indiana State Sanatorium, Rockville, October 19
Smith-Esteb Memorial Hospital, Richmond, November 10

Irene Byron Sanatorium, Ft. Wayne, Nov. 15

There will be no fee attached to the course, which is being presented as an aid to the medical profession.

Further information will be supplied by the Indiana Tuberculosis Association, 1219 Security Trust Building, Indianapolis.

In addition to the articles enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Abbott Laboratories
Cevitaminc Acid-Abbott
Tablets Cevitaminc Acid-Abbott, 25 mg.
Tablets Cevitaminc Acid-Abbott, 100 mg.
Drug Products Co., Inc.
Pulvoids Digitalis Folium, $\frac{1}{2}$ grain
Pulvoids Digitalis Folium, $\frac{3}{4}$ grain
Pulvoids Digitalis Folium, $1\frac{1}{2}$ grains
Jensen-Salsbery Laboratories, Inc.
Diphtheria Toxoid, Alum Precipitated (Refined), one 10 cc. vial package
Sharp & Dohme
Propadrine Hydrochloride Capsules, $\frac{3}{4}$ grain
Propadrine Hydrochloride Solution 3%
E. R. Squibb & Sons
Refined Tetanus Toxoid, Alum Precipitated-Squibb, two 1 cc. vials package.
United States Standard Products Co.
Polyanacrobic Antitoxin (Tetanus-Gas-Gangrene) Refined and Concentrated, one vial package

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

Greetings!

Now that your summer vacations are drawing to a close, do not feel let down for we are preparing a very hearty welcome for you, October 4, 5 and 6. Our program is varied and of a pleasant nature. Mrs. Demarchus Brown, whose fame is undisputed, will speak at a reception honoring our state officers and it is our wish to meet and know all of our guests. A bus trip is planned to places of outstanding interest in the city.

So, until you "Fall-Fling" in October,

Best Wishes,
MRS. GEORGE W. BOWMAN,
President, Woman's Auxiliary
to the Indianapolis Society.

The Auxiliary Breakfast to be held at the Indianapolis Athletic Club is the outstanding event in the Auxiliary's Calendar, Wednesday, October 5, at 9:00 a. m. (Eighty-five cents.) Make reservations early. Every doctor's wife, daughter, and sister in Indiana is urged to be present. This is the place to get information and inspiration for your next year's program.

Our state president sends this personal message: "It seems only a few, short days have passed since I accepted, with deep humility, the high honor of State President. Your co-operation has meant much to our organization and co-operation moves mountains of difficulty. The Auxiliary has grown

steadily for ten years and has promoted a lasting influence for good-will in every community in which a unit exists. We must, however, not lose sight of the fact that we are an auxiliary and subsidiary to the State Medical Association. The Auxiliary has acted in all matters with the approval and advice of the parent organization. I look forward with much pleasure to the coming convention where old friendships will be renewed and new ones made. Work of the past year will be reviewed and plans for the new year formulated."

"May we plan and build for the future,
Without hope of personal gain;
Bury all that is selfish within us
That our Auxiliary may achieve and attain."

MRS. FRED B. WISHARD,
State President.

With the hearty approval of the Advisory Board and the secretary to the State Medical Association, the Auxiliary is to have a bulletin of its own, to be issued about October 1. This newsletter is to be sent to each of our 431 members. Will the chairman of each county auxiliary send a list of members with addresses at once to the State Press Chairman for mailing purposes. We hope the first number of the "Hoosier News-Letter" will fulfill your fondest expectations.

Officers for 1938-39

Delaware-Blackford County

President—Mrs. Clay Ball,
Vice-President—Mrs. F. E. Kirshman,
Secretary—Mrs. G. S. Young,
Treasurer—Mrs. Robert Turner.

Floyd County

President—Mrs. Morton Wolfe.
Vice-President—Mrs. James Baxter.
President-Elect—Mrs. Parvin Davis.
Secretary—Mrs. John Gentile.
Treasurer—Mrs. A. N. Robertson.

In October we will celebrate the tenth anniversary of the State Auxiliary.

MRS. W. F. HUGHES,
Press and Publicity Chairman.

4025 N. Meridian Street,
Indianapolis.

**Auxiliary Members
And Other Women Guests
Will Find Plenty Of
Entertainment Planned
For Them In Indianapolis,
October 4, 5, and 6.**

BOOKS

BOOKS RECEIVED

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A complete Dictionary of the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography, etc. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut.-Colonel, M.R.C., U.S. Army; Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; Editor of the "American Pocket Medical Dictionary." With the Collaboration of E. C. L. Miller, M.D., Medical College of Virginia. Eighteenth Edition, Revised and Enlarged. 1607 pages with 942 illustrations, including 283 portraits. Flexible and Stiff Binding. Philadelphia and London: W. B. Saunders Company, 1938. Plain, \$7.00 net. Thumb Indexed, \$7.50 net.

* * *

DISEASES OF THE SKIN FOR PRACTITIONERS AND STUDENTS. By George Clinton Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Chief of Clinic, Department of Dermatology, Vanderbilt Clinic; Fellow of the American Medical Association, of the American College of Physicians, and of the New York Academy of Medicine. Second Edition, Entirely Reset. 899 pages with 938 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$10.00 net.

* * *

A TEXTBOOK OF GYNECOLOGY. By Arthur Hale Curtis, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago, Illinois. Third Edition, Reset. 603 pages with 318 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$7.00 net.

* * *

A TEXTBOOK OF BACTERIOLOGY. By Thurman B. Rice, A.M., M.D., Professor of Bacteriology and Public Health at the Indiana University School of Medicine. Second Edition, Revised. 563 pages with 121 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$5.00 net.

* * *

THE TROUBLED MIND. A Study of Nervous and Mental Illnesses. By C. S. Bluemel, M.A., M.D., F.A.C.P., M.R.C.S. (Eng.). 520 pages. Cloth. Price \$3.50. The Williams and Wilkins Co., Baltimore, 1938.

* * *

THE TECHNIQUE OF CONTRACEPTION. An Outline. By Eric M. Matsner, M.D. Foreword by Frederick C. Holden, M.D. Fourth edition. 50 pages. Paper cover. Published by The National Medical Council on Birth Control, 501 Madison Avenue, New York, N. Y.

BOOK REVIEWS

OPERATIVE GYNECOLOGY. By Harry Sturgeon Crossen, M.D. and Robert James Crossen, M.D. Fifth edition. Twelve hundred sixty-four illustrations including three color plates. St. Louis, The C. V. Mosby Company, 1938.

No gynecologist or general surgeon can well be without a Crossen Operative Gynecology and it is unlikely that many are. It has been seven years since a new

edition and this, the fifth, has been entirely revised and reset.

The general plan of this work has been kept, "Is operation needed? What operation should be selected? and What is the best before and after care?" One of its features is to describe a number of operations for a condition and then recommend the best procedure according to the opinion of the authors.

Fine illustrations have always been an important part of this book and in this edition 200 new ones have been added.

All the problems of operative gynecology are covered. The section on cancer of the uterus and radiation therapy is carefully considered. The one on genital fistulae is very complete. There is a chapter on the "Urinary Tract in Relation to Gynecologic Surgery" and Dr. H. S. Brookes contributes an extensive chapter on "The Intestinal Tract in Relation to Gynecologic Surgery," including rectal surgery and hernias. Dr. Brookes also contributes a chapter on "Anaesthesia in Gynecologic Surgery."

The aims of the authors are "to push the fight against disease by presenting the advances of surgery as applied to the relief of gynecologic diseases in a way which will give practical aid to the surgeon seeking help on these problems."

* * *

THE LIFE OF CHEVALIER JACKSON, An Autobiography. The Macmillan Co. (1938) 222 pages, 64 illustrations, 16 color reproductions. Cloth, \$3.50.

In "The Life of Chevalier Jackson, An Autobiography," the author's earliest recollections are of life in a mining community where brutality to both men and beasts, drunkenness and hopeless poverty made a great impression on his childish mind. His school days were a torture to his frail body but they helped to develop a dogged determination that has won for him the highest laurels in the medical profession. His great love for children, and their suffering through the carelessness of older people, led to the perfection of the bronchoscope for the removal of foreign bodies and caused him to wage a twenty-year war for the proper labelling of caustics.

The book is beautifully illustrated with reproductions of the author's paintings and photographic scenes of his daily life. For his charity, sobriety, and loving kindness among both his patients and his family, Dr. Jackson had been called by one author "A Modern Saint."

The book is of interest to the laity as well as the medical profession.

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASE Monthly Report, July, 1938

DISEASES	July 1938	June 1938	May 1938	July 1937	July 1936
Tuberculosis	207	159	204	487	301
Chicken Pox	28	150	120	39	24
Measles	109	898	2,158	588	24
Scarlet Fever	99	190	257	138	127
Smallpox	79	105	134	29	2
Typhoid Fever	53	23	15	42	20
Whooping Cough	69	72	52	330	115
Diphtheria	39	38	54	42	41
Influenza	33	13	8	21	48
Pneumonia	44	53	45	31	76
Mumps	14	52	59	26	26
Polio-myelitis	3	0	0	31	4
Meningitis	3	3	2	5	6
Undulant Fever	11	3	5	5	1
Tularemia	1	2	2	0	0
Rocky Mountain Spotted Fever	2	0	0	0	0
Amebic Dysentery	2	0	0	1	0

ABSTRACTS

THE TEACHING OF NUTRITION TO STUDENTS OF MEDICINE

Realizing the need for an understanding of nutrition, several years ago S. P. LUCIA and NINA SIMMONDS, San Francisco (*Journal A. M. A.*, April 23, 1938), organized a voluntary course consisting of fifteen lectures and practical demonstrations on nutrition and diet in disease. So satisfactory were the results that they report their plan for the benefit of others. The instruction was conducted in the manner of a seminar. A formal presentation of each subject was given by a physician, research worker in nutrition or dietitian. A free discussion of the subject followed. The students were interrogated on fundamentals of physiology, biochemistry, pathology and nutrition. Information on the pathologic physiology of the disease under discussion was reviewed. Practical demonstrations, prepared by the dietitian, were presented. Reasons were given for the diet prescriptions that were advised. When feasible, mimeographed material of the text was provided. In addition, certain students were assigned special diets to calculate, and these were presented for discussion at subsequent seminars. In each case the student was asked to give the reasons for his prescription, to justify his selection of foods and to discuss them from the standpoint of their psychologic appeal, palatability, number of calories per portion, digestibility, amount of residue, and quantity and quality of protein, fat, carbohydrate, vitamins and minerals. The work which was covered included the normal diet, calculation of diets, therapeutic diets as modifications of the normal diet, how to order hospital diets, problems concerned with forcing fluids, dietary fads, selection of foods and dietary consultation. The students were given an opportunity to review the physiology and biochemistry of digestion in the normal person and to learn of the alterations that occur in diseased persons.

MEDICAL TREATMENT OF HYPERTHYROIDISM WITH A HIGH FAT DIET

SAMUEL SOSKIN and I. A. MIRSKY, Chicago (*Journal A. M. A.*, April 23, 1938), cite a case of acute and severe hyperthyroidism in which the attending physicians and the consulting surgeon were in complete agreement as to the necessity for prompt surgical intervention. Because the patient absolutely refused to submit to thyroidectomy it was deemed justifiable to attempt to treat her by medical means. The treatment consisted of a high fat diet: 90 Gm. of protein, 230 Gm. of fat and 90 Gm. of carbohydrates, total calories 2,790. For a period of twenty-three days 3 Gm. daily of cholesterol was added to the diet by incorporating it in the butter ration. Rest in bed was enforced. No other form of therapy was employed at any time. Iodine was not administered at any time. On this treatment the patient made a striking and complete recovery, which has persisted for almost two years, during which time she has been observed at weekly intervals. This single case does not warrant the routine employment of this dietary treatment in patients who are willing to submit to the established surgical therapy. The authors believe that it is possible that their patient might have recovered spontaneously under any expectant form of treatment. Furthermore, the time required for the treatment, even if ultimately proved to be generally effective, makes it economically less practical than the surgical method. Nevertheless the results should serve to stimulate interest in the application of the more recent knowledge of thyroid physiology to the treatment of hyperthyroidism. Meanwhile, they suggest a mode of procedure which may be of value in certain cases in which surgery is refused or in which the hazards of surgery are too great.

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

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NUMBER 10

CAUSES OF BLINDNESS AMONG THE CHILDREN AT THE INDIANA STATE SCHOOL FOR THE BLIND

ROBERT MASTERS, M.D.

Indianapolis

The Indiana State School for the Blind, located just north of the Indianapolis city limits, is housed in a group of beautiful, modern buildings which are set high in the center of a sixty acre campus. The grounds are gently rolling and pleasingly wooded. There is a vigorously flowing, shallow stream, just like those found in so many of our Indiana woods, which winds through the southwest portion of the grounds. Some of the water of this stream has been utilized for a lily pond, the centerpiece of a flower garden of great beauty. The entire grounds are landscaped in a manner that retains and enhances their natural beauty. The central group of buildings houses the administrative offices, class-rooms, vocational training shops, library, music rooms, auditorium and gymnasium, with the dormitories for boys at one end and for girls at the other. There is a well-kept playground within the great circle of a cement-paved track for roller-skating. But the students at the School cannot see these beautiful grounds and fine buildings! This thought insistently and depressingly intrudes itself upon the consciousness of any visitor as he looks about the fine plant which the State of Indiana has provided for the training of its blind children.

During the early part of last year, the School was visited by the entire ophthalmological staff of our Indiana University School of Medicine. A large group of children, some presenting diagnostic problems and others exhibiting unusual pathological pictures, were examined by the staff members. When a busy evening of examination was completed, several of the men expressed their appreciation of the museum of ocular pathology which had been presented, but all of them were depressed by the hopeless outlook for sight of such a large gathering of children. Furthermore, they were shocked when they learned how many of these sightless youngsters should not have been

blind. So many of them were blind due to causes which could have been prevented.

The purpose of this communication is to record the causes of blindness of the students at our School for the Blind and to call especial attention to the relatively large number of preventable causes which were discovered. The statistical tabulation will be of interest to some readers. Others may be impressed by the phases of blindness prevention which these statistics suggest.

It is safe to assume that a rational program for the prevention of blindness should be founded upon a careful statistical study of the causes of blindness among any occupational or age group. This is true of school children, just as it is of industrial workers. Until a few years ago most schools for the blind were woefully lacking in satisfactory statistics on the causes of blindness of their students. Among the worst of these delinquents was our own School, but soon after Mr. Robert Lambert became its superintendent a thorough survey was begun. Mr. Lambert's hearty cooperation in this work has been extremely helpful and is herewith gratefully acknowledged.

Since 1934, one hundred and eighty-seven students have been examined, bringing the records up to date through the school year just closed. Many diagnostic problems presented themselves, the solution of which was greatly aided by the other members of the eye staff of our School of Medicine. An attempt has been made to tabulate the causes of blindness found according to the method outlined by The Committee on Statistics of the Blind.* Topographical and etiological classi-

*The Committee on Statistics of the Blind, jointly sponsored by the American Foundation for the Blind and the National Society for the Prevention of Blindness, was appointed in 1929 to study the problems of statistics of blindness and the blind and make recommendations for the improvement of such statistical data.

CLASSIFICATION OF CAUSES OF BLINDNESS

187 Children Examined

Topographical		Etiological		No.	%
Primary	Secondary				
1. Optic Atrophy, all types					
a. Retinal Degeneration*	Optic Atrophy	Congenital	17	9.1	
b. Chorioretinitis	Optic Atrophy	Prenatal syphilis	12	6.4	
c. Optic Neuritis	Optic Atrophy	Infections, not specified	10	5.3	
d. Optic Atrophy		Cause undetermined	9	4.9	
e. Coloboma of Macula	Optic Atrophy	Congenital	5	2.6	
f. Optic Atrophy		Meningitis	5	2.6	
g. Pigmentary Degeneration of Retina	Optic Atrophy	Congenital	4	2.1	
h. Optic Atrophy		Oxycephaly	1	0.53	
i. Microphthalmos	Optic Atrophy	Congenital	1	0.53	
Total.....			64	34.2	
2. Cataract		Congenital	34	18.18	
Cataract	Uveitis	Trauma at play	1	0.53	
Total.....			35	18.7	
3. Ulcerative Keratitis	Staphyloma, Phthisis Bulbi, etc.	Ophthalmia Neonatorum	23	14.9	
Ulcerative Keratitis		Scarlet fever	1	0.53	
Total.....			29	16.00	
4. Uveitis	Occluded pupil, Vitreous opacities, etc.	Infections not specified	13	6.9	
5. Buphthalmos		Congenital	11	5.87	
6. Interstitial Keratitis		Prenatal Syphilis	11	5.87	
7. Aniridia		Congenital	5	2.6	
8. Sympathetic Ophthalmitis		Trauma at play	4	2.1	
9. Microphthalmos	Coloboma of Iris, Ciliary Body and Choroid	Congenital	2	1.07	
Microphthalmos	Congenitally opaque corneas	Congenital	1	0.53	
Microphthalmos	Uveitis	Congenital, plus infection not specified	1	0.53	
Total.....			4	2.1	
10. Corneal scars		Trachoma	3	1.6	
11. High Myopia		Heredity presumed	2	1.07	
12. Albinism		Congenital	2	1.07	
13. High Degree Hyperopia		Not blind needs sight- saving class training	1	0.53	
14. Both eyes enucleated		Neuroepithelioma	1	0.53	
15. Cause undetermined	Examination not permitted, child mentally subnormal		1	0.53	

* The degenerative changes in this group were located in the macular region, with a few of them occurring in family groups, and therefore presumably hereditary in character. Some of this group may, however, have been due to prenatal syphilis.

fications are listed in the above printed table. In a previous paper, read before the Eye, Ear, Nose and Throat Section of the Illinois State Medical Society and printed in the October 1937 issue of the Illinois State Medical Journal, a report was given on the first 152 students examined at the school. The statistical chart did not follow the standard method of classification which has been proposed by the Committee on Statistics of the Blind. A serious effort has been made to correct that deficiency in the new tabulation which is presented.

Readers of this report will probably be surprised to learn that only about 75% of the students examined should have been receiving training for the totally blind. Approximately 22% were candidates for training in sight-saving classes, or schools for the partial-sighted. More sight-saving classes are much needed in Indiana, to avoid sightless training for children who have some vision. It is my hope that we may at some time in the future have sight-saving classes in our State

School for the Blind, just as they have been provided in the Illinois School. About 3% of our children were found to have good enough vision that they were returned to public school. Included among the group of children who were not blind were those with:

1. Interstitial keratitis whose corneal scars had cleared somewhat.
2. Congenital aniridia and congenital cataract manifesting visual improvement with correcting lenses.
3. Albinism.
4. Small congenital macular coloboma.
5. High refractive errors.

In ironical contrast with the group of conditions which cause only partial blindness is the list of those which cause most profound blindness, for the latter include so many entirely preventable conditions. Some of these, with brief comments about them, are here listed:

1. Ophthalmia neonatorum (28 cases), 15 percent of all children in the School, in a State which

legally requires Credé treatment of newborn infants' eyes. There is no way for us to know how many of these children were delivered by physicians, or how many of their mothers had prenatal care. The children themselves, however, chant almost without exception their well-learned catechism that "the doctor used too-strong drops in my eyes when I was born." One is given to wonder, of course, if the "drops" were strong enough, but the children have learned their lines and speak them right out. The lesson to our profession is extreme care in prenatal maternal history-taking and examination and indicated treatment, plus precise application of Credé technique for the newborn babies.

2. Prenatal syphilis, which caused a total of 23 cases, or 12.3 percent, included 12 cases of optic atrophy accompanying chorioretinitis, and 11 cases of interstitial keratitis. It is probable that some of the cases of optic atrophy of undetermined cause were also due to prenatal syphilis. Here again we no doubt encounter youngsters whose mothers did not have medical care, but to our profession the lesson is routine prenatal Wassermann tests for all expectant mothers.

3. Thirteen cases, 7 percent of the group, were blind because of uveitis and its sequellae. Persistent ocular congestion, especially when accompanied by pain and photophobia, should be thoroughly investigated by an oculist if one is available, particularly when such a condition appears during the acute febrile diseases of childhood. Prompt dilatation of the pupil and other indicated treatment may serve to avoid the destructive complications of uveitis. Let us not look too casually upon persistently red eyes of our sick children, waiting for them to clear up. Rather let us routinely check the eyes, along with the temperature and heart and lungs, during progress of the childhood diseases.

4. We have three children at the School who should have one good eye, but who are blind in both eyes. These youngsters had a penetrating injury of one eye, and lost the other eye with a sympathetic ophthalmitis. I wonder what these little folks would say, if they were given their choice between one good eye and too much delay about removing the exciting, injured fellow eye. Enucleations are sometimes very constructive surgery, much as the ophthalmic surgeon dislikes to perform them.

5. None of us know as much as we would like to know about the transmissibility of some of the hereditary forms of blindness. From the studies of our children, however, it has been learned that some congenital anomalies are apparently highly transmissible. There are, for example, five children with congenital aniridia, every child in the family of a mother who has the same condition. Among the children with congenital cataract there are some family groups whose mothers had congenital cataract. In several such families there are, respectively, four of six, four of seven, both of two, and three of five, children. Surely these mothers, the victims of congenital anomalies themselves, do not want to bring large families, similarly afflicted, into the world. It seems as if the family doctor has a constructive piece of work before him in cases like this in aiding these afflicted people with a family-planning program just as much as he ethically and rightfully can.

In conclusion permit me to beg indulgence and forgiveness if the foregoing comments about the prevention of blindness in children have seemed in any way dictatorial. To some of us has been given the duty and privilege to conserve the sight of our fellows as well as we know how. If we sometimes become over-enthusiastic in our suggestions to our fellow-physicians, we do so only because we are interested in our job, just as each one of our JOURNAL readers is interested in his.

THE STATE AND THE BLIND

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A definitive introduction to the study of the incidence of blindness in Indiana, while questionable rhetorically as failing to challenge enthusiastic reader-interest, is, nevertheless, essential to a clear and comprehensive understanding of the subject. According to Section 1, subsection (o) of the Welfare Act of 1936, "A person shall be considered as blind for the purpose of this act

who has vision in the better eye with correcting glasses of 20/200 or less or a disqualifying visual field defect as determined upon examination." To receive blind assistance in Indiana the first eligibility factor to be established is a qualifying defect in visual acuity, and if the examination by the ophthalmologist reveals no such defect, the investigative procedures are terminated and the applicant is not eligible for blind assistance despite any urgent need that might be shown by a social investigation.

There were in Indiana at the close of the fiscal

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year on June 30, 1938, 2,413 individuals who were considered blind within the meaning of the definition described above and who were receiving monthly blind assistance. There had been 2,551 but 138 were withdrawn leaving a net of 2,413. They presented a need for economic assistance and were furthermore able to meet all of the eligibility requirements as set forth in regard to state residency, age, and lack of financial or relative resources to provide for them. The total amount paid in the month of June, 1938, in blind assistance was \$46,022 or an average of \$19.07 per person.

The largest group of recipients, 289, resides in Marion County. The social explanation of the large number of recipients in Indianapolis may be due to the fact that these blind prefer a congregate life among individuals similarly handicapped, and it is probably true also that the Indiana State School for the Blind and the Board of Industrial Aid for the Blind, which provide educational and industrial training, may have been partly responsible for the localization of the handicapped group. The recipients' explanation for remaining in Indianapolis after receiving their training is that their familiarity with the physical layout of the city lessens their problem of getting around and that they can support themselves more adequately in a large city. Other counties having a large number of blind recipients are Vigo (Terre Haute) with 83, Vanderburgh (Evansville) with 74, and following in diminishing numbers are Allen (Fort Wayne), Wayne (Richmond), Knox (Vincennes), and Lawrence (Bedford) counties.

Because of the large number of blind recipients and the proportionately high cost per person, it was felt by the state department of public welfare that a study of the actual causes of blindness would be of value so that from indicatory trends or findings resultant from the study, a basis might be found for establishing a program for the prevention of blindness. This plan was in line with the policy of neighboring states because they likewise through federal grants were given more adequate resources with which to meet and provide for the problems presented by the blind.

It was then that the statistician from the National Society for the Prevention of Blindness, with the assistance of state workers under the supervision of the state supervising ophthalmologist, reviewed every eye examination report on file and tabulated the topographical factor (part of the eye affected) and the etiological factor (cause of the eye condition). Further classifications were made as to the degrees of blindness, ranging from Group I (totally blind or light perception group) through various divisions to the border line group (Group V, 20/200 visual acuity). In accordance with the general lay opinion that a blind man is one who is totally without sight, the statistical study shows that approximately 60% of all individuals handicapped by blindness fall into Group I.

Since many persons applying for blind assist-

ance are being examined by ophthalmologists many years after the onset of their blindness, there have been noted inconsistencies between the histories obtained by the case worker and by the physician as to what primary condition is responsible for the blindness. While it is believed that most applicants have given to the best of their ability the history of their blindness, frequently that information affords no factual or diagnostic clues. Lack of cooperation on the part of some applicants has made examinations difficult and accurate histories impossible.

Taking first for consideration etiological factors, it is noted that the cause of blindness in many of the cases is classified as undetermined or not specified, and this general grouping has been subdivided into three units: (1) unknown to science, (2) undetermined by the physician and (3) not specified. Into unit (1) have been placed all cases of cataracts (unless of a specified type), primary glaucoma, and other eye diseases for which the medical profession has not yet announced the cause or prevention.

It is estimated that about 26.2% of the blindness in a general population appears to be due to cataracts; in Indiana the percentage is 26.1%. The majority of tabulated cataracts has been reported as having developed in aged persons, but cases of traumatic and congenital origin have been included.

In the distribution of cataracts recorded geographically one is impressed by the fact that all Indiana counties but two have cases where the blinding condition was cataracts. There is a high percentage in a group of southern counties. One tier of nine adjoining counties and another group of two adjacent counties in the southern third of the state report that from 40 to 63% of their blindness is due to cataracts. In the central third of the state are two groups of two adjoining counties and in the northern third a similar group of two and another of four counties reporting high cataract percentages. It is notable that no county reporting a high index of cataracts is isolated. In every instance the neighboring county or counties also report a high index. There is no apparent greater incidence of cataracts among foreign born persons than among the native born, as Lake County with the highest population of foreign birth in the state ranks low in percentage of cataract cases. Industrial counties did not show a higher percentage than agricultural counties.

As widespread as cataract cases are cases of glaucoma, although the frequency of the occurrence of the latter is only two-fifths that of cataracts. While 19 counties report no glaucoma, statistics reveal glaucoma as responsible for almost 10% of the blindness among Indiana recipients. Percentage statistics for counties are of little value for analytical purposes, as is evidenced by Pulaski County which has only two recipients, the blindness of both being attributed to glaucoma.

Infectious diseases rank second in importance as a contributory cause of blindness. The accompanying chart indicates the percentage of the more important infectious diseases responsible for blindness; limited space permits but brief discussion of only two, syphilis and trachoma.

TRACHOMA IN INDIANA

Trachoma is very prevalent in some sections of the United States and practically non-existent elsewhere. It is worthy of comment that such a condition also exists geographically in Indiana. Recent statistics indicate that approximately one-tenth of all blindness in Indiana is due to secondary conditions resulting from an early infection of trachoma. Since the Welfare Act stipulates that male applicants for monthly assistance must be 21 years of age and female applicants must be 18 years of age, there is recorded no primary trachomatous infection; this seems to be identified with a younger age group.

Eye physicians' reports for 30 northern Indiana counties reveal no cases with the etiology of trachoma, but as we travel southward, we find the incidence of this disease extending the entire width of the state with the greatest concentration in areas bordering Illinois and Kentucky. Interesting and perhaps significant is the statement of a southern Indiana physician that trachoma follows the Daniel Boone trail from the Cumberland Gap to the Ozark Mountains and that the largest family groups with a history of trachoma are direct descendants of the followers of Boone.

Drawing an imaginary east and west line at the northern border of Marion County, we find only 45 cases (21%) in the north but 167 cases (79%) in the area to the south. Knox County, with 53 blind recipients, leads in the number of diagnosed trachoma cases with 18 (34%). Other counties with a high trachoma ratio are the two adjoining counties, Daviess with 20% and Gibson with 21%. Another high percentage ratio is found in Lawrence and Jackson Counties. Social case histories indicate that in practically every county where trachoma exists, more than one member of a family was receiving blind assistance, and in one county a mother and five daughters were either receiving or had applied for blind assistance because of defective vision due to early trachoma.

SYPHILIS AS CAUSE OF BLINDNESS

In the infectious disease classification, syphilis ranks second as a cause of blindness. Using the same areas as before, it was discovered that the larger proportion of recipients whose blindness is ascribed to syphilis is in the southern zone, but there is a concentration area in Marion County. The latter county, with 289 recipients, has 47 cases (16%) due to syphilis. Lake County, with 48 recipients, has 12 cases (25%) and ranks first in percentage. Thirty-four counties reported no cases of blindness due to syphilis, but in the state

as a whole the proportion of syphilitic blindness is considered high from a social point of view at approximately a 7% ratio. It is anticipated that the present well organized national anti-syphilis campaign will prove effective and that soon there will be a sharp reduction of blindness due to this infection.

INDUSTRIAL EYE INJURIES

Traumatic and chemical injuries of industrial and non-industrial types comprise the third group of etiological importance at approximately 8%. The total number of industrial injuries and diseases is 126, while the non-industrial group numbers 87. The case histories of a random group of specified injury cases were reviewed and the comments noted. Twenty-four counties reported blindness caused by trauma and the coal mining area showed a concentration of cases. The mine workers themselves ascribed their blindness to injuries by miners' picks, explosion of cable, mine explosion, infiltration of coal dust, and burns by molten iron. A "freak" industrial injury resulted from a severe cut in the eye with paper. Burns were caused by caustic soda, acid, steam, lime, and electric shock. Although large numbers of women are engaged in industry where exist conditions hazardous to the eye, only three cases of traumatic blindness were recorded for them.

Total blindness in both eyes seems to be a general characteristic of the industrial injury cases studied. In some instances only one eye was actually injured, but sympathetic ophthalmitis developed in the other eye, and in no traumatic case did the individual have better than light perception. The greatest number of cases of industrial blindness occurred in age groups 20 to 29 and 30 to 39. Only three cases of blindness due to industrial diseases are recorded for the whole state.

The remainder of the etiological cases are divided into the following classifications: Congenital and hereditary cases, 8%; non-infectious systemic disease, 7% (which includes vascular and kidney diseases); neoplasm, .005; and toxic poisonings, .003.

The discussion thus far has not adhered rigidly to etiological and topographical classifications. One purpose was to evaluate the social and statistical trends of all factors relating to blindness. The topographical discussion has been limited to the larger percentage groups; the accompanying chart supplies additional information.

Emphasis was placed on cataracts because of the number of these cases, and because lay workers in the county departments can better interpret the value of the surgical program when the eye condition proves amenable to corrective treatment.

Second in importance are the disturbances of the choroid and retina, which number 267 (over 10%). Among the infectious diseases in etiology, syphilis is first and accounts for 32% of chorioretinal disorders. The non-infectious systemic group is

All Causes Etiological	All Causes Topographical	Total	Glaucoma	Refractive errors	Developmental anomalies	Degenerations	Keratitis	Ulcers and pannus	Others of cornea	Iritis and iridocyclitis	Sympathetic ophthalmitis	Cataract	Others of lens	Choroid and Retina	Optic atrophy	Optic neuritis etc.	Others of optic nerve	Vitreous	Unclassified
Total		2551	249	55	66	187	50	338	61	98	48	666	3	267	252	79	16	17	99
Meningitis		23				2		1		2					9	7			2
Ophthalmia neonatorum		63				24		39											
Septicemia		74	5			2	2	2		16	1	7		20	12	6		1	
Syphilis		190	5		4	9	21	1	1	13	1	5		34	82	14			
Trachoma		244				21	1	206	12	1									3
Other infections		167	2			35	11	40	3	20				32	15	6			3
Industrial trauma		65				15		8	11	8	7	7		3	5			1	
Play or sport		42	1			19		1	1	1	12	3		2	2				
Other trauma		106	2			26		3	17	1	26	9		2	13	4	3		
Toxic, alcohol, etc.		8													5	2			1
Neoplasms		13				1			1						7	3	1		
Diabetes		50	1							1		31		15	1	1			
Nephritis		24										1		21		2			
Vascular		59	7							1		9		19	14	2	6	1	
Other non-infectious		48				2	1	1		6		1		9	16	5	4		3
Congenital		160		9	55	4	1			1		55		23	5	1		6	
Hereditary		51	3	11	6				1			10	2	12	4	2			
Unknown to science		791	223	34								526		5	1				2
Unclassified		373		1	1	27	13	36	14	27	1	2	1	70	61	24	2	8	85

responsible for 24% of them, since nephritis, diabetes and vascular diseases are also responsible for degenerative changes. Inflammations, atrophies, and detachments of the retina are included in this group.

Optic atrophy ranks third in frequency. It is estimated that approximately 9.9% of the blindness is due to it and the most frequently reported cause of atrophy is syphilis.

The first part of this study has been devoted to the incidence and causes of blindness. Another important section of the Welfare Act provides for preventative or restorative treatment which, when successfully administered, will result in the elimination of many recipients from blind assistance rolls and insure against many others becoming eligible in the future. The state department may grant temporary eye treatment to any applicant or additional assistance to any recipient who is in need of treatment to prevent blindness or to restore sight whether or not he is blind as defined in the act. This is one of the most hope-

ful aspects of the program; an individual may be given an opportunity to regain sight or stabilize present vision.

In the beginning of the administration of the act in 1936, the majority of blind applicants had an economic need, and the county departments directed their first activities to providing assistance in meeting these needs; it is only in recent months that concentrated efforts have been made to engage surgical and medical treatment for the blind. As expected, some applications for treatment have been withdrawn because of death, illness, alleged fear of surgery, interference by relatives, religious beliefs, etc.

The eye treatment program has engaged surgical or medical services for 160 persons (95 men and 65 women). Of these, 157 are white. Ages range from 20 to 93 years. The largest number of individuals (36) applying for eye treatment has been the age group of 65 to 69 and the second largest number (27) in the 70 to 74 age group. Twenty-three applications were filed from each

of the 55 to 59 and 75 to 79 age groups. Two individuals between the ages of 80 and 85 and seven in the younger age group of 20 to 29 made application. The total number of individuals applying for cataract removals was 129. Of this group, four persons had diabetic cataracts and three had the congenital type; the rest were of the so-called senile form. First in the medical group and second in the surgical group were individuals applying for eye care where trachoma was primarily responsible for the present eye condition. Into this classification are grouped entropion, pannus, and ulcerative keratitis to the number of fourteen. The third group of importance embraces glaucoma cases in which the physician felt that by operation the sight might be stabilized. Classified in smaller numbers were removals of pterygia, and enucleations necessitated by sympathetic ophthalmitis, carcinoma, and panophthalmitis. At the present time, attending surgeons have reported that 112 of the 160 patients have been discharged. The tabulated results indicated that 80 individuals (71.5%) were restored to vision with an acuity range of 20/20 (normal vision) to 20/70, and it is hoped that many of these

people may be re-employed in industry. Fourteen persons (12.5%) were removed from blind assistance rolls by the restoration of sight to a visual acuity of 20/70 to anything better than 20/200. Eighteen (16%) of the treated cases were not improved. The Snellen notations from which the classifications were made were all on cataract cases with the exception of five of glaucoma and four of pterygia. Eighty-four of the 160 persons accepted for treatment were in addition recipients of monthly blind assistance and, if successful operable cases, they have been or will be removed from the rolls of blind assistance.

In conclusion, it should be emphasized that the statistics which have been given are based on a comparative analysis of data which have been collected during the past two years. The program is still in its infancy, and with greater materialistic growth it is anticipated that many improvements will be effected. Within a short time the material herein submitted may be considered outdated, but it is at this time representative of the status of the blind assistance program at the close of the second fiscal year.

CAUSES OF BLINDNESS IN ADULTS

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The causes of blindness are so many and varied that it would be inexpedient to attempt to present all of them in the space allotted to the symposium in this issue of *THE JOURNAL*.

The ophthalmoscope is indispensable for the identification and interpretation of many of the ocular conditions that prevent seeing, but much can be learned with the aid of a good light and a magnifying glass.

The mode of onset is significant in the diagnosis of conditions that interfere with vision and the presentation of subjects has been planned accordingly. The incidence of each cause was considered in determining the amount of discussion given it.

SUDDEN ONSET

Embolicism of the central artery of the retina produces sudden blindness and is practically always limited to one eye. The macula appears red in the midst of an area of grayish-white ischemic edema of the retina; the retinal vessels, if seen at all, are quite narrow. The condition is found in cases of cardiac disease and arteriosclerosis. Treatments to dilate the artery and dislodge the embolus are amyl nitrite by inhalation, gentle massage of the globe through the closed eyelids, and drainage of the aqueous by paracentesis.

Somewhat similar manifestations are found with retinal endarteritis obliterans and thrombosis of

the central artery, which are often unilateral but of slower onset, and spasm of the central arteries, which is rapid in onset but bilateral.

RAPID ONSET

Thrombosis of the central vein of the retina is marked by rapid reduction even to total loss of vision in one eye. The retina is splattered with dark blood. High blood pressure and arteriosclerosis are predisposing. Secondary glaucoma is an expected complication.

Gross intraocular hemorrhage rapidly reduces vision to complete loss. When the vitreous is wholly permeated with blood the pupil is so densely black that nothing can be seen behind it except a faint pink reflex from the lens under brilliant illumination.

Detachment of the retina causes fairly rapid loss of sight and is generally limited to one eye. The patient has the impression that a portion of the peripheral visual field is clouded as by a veil. The clouding gradually encroaches on and finally obstructs central vision, although some part of the peripheral field may be preserved.

In other cases the entire sight is foggy almost from the beginning. A frequent early symptom is distorted images of objects. Part of the retina, usually the lower, is billowed out into the vitreous chamber. The retinal vessels are chocolate in

color and have no light streaks. Spontaneous reattachment is rarely noted. Until recently there was no treatment that offered much hope. Now an encouraging percentage of successes is being reported from surgical procedures.

A form of bilateral detachment is observed in some pregnant women who often are found to have renal disease. Termination of gestation as soon as consistent with the safety of the patient is followed by partial or complete reattachment. When the phenomenon appears in successive pregnancies, eventual total permanent blindness is to be expected.

Intraocular tumors that elevate the retina when they invade the vitreous chamber simulate detachment, but blindness is of much slower onset.

Certain substances cause blindness in persons who are susceptible to their toxic effects. Quinine often leads to permanent loss of sight. Like in embolism of the central artery of the retina there is a red spot at the macula, but there is no retinal edema. The toxic effects of ergot are somewhat similar. Methyl alcohol sometimes abolishes sight. Quite frequently there is a period of demonstrable improvement, but soon it is succeeded by deterioration that speedily progresses to total blindness. In each of these conditions the retinal vessels become very finé.

Hysterical blindness has no demonstrable sign of ocular disease; the phenomenon is ascribed to inhibition of visual functions, a variety of cerebral inhibitions manifested in hysteria.

MODERATELY RAPID TO RAPID ONSET

Vitreous abscess destroys sight in one eye. Most often it is due to infections following penetrating injuries of the globe but it may extend from an active pyogenic infection of the choroid, from septicemia, purulent sinusitis, and so forth. The vitreous chamber is filled with pus and so the pupil has a creamy to yellowish reflex.

Panophthalmitis involves one whole eyeball in a violently destructive pyogenic inflammation. The eyelids are greatly swollen. The conjunctivae are red and edematous. The entire eyeball is filled with pus. Constitutional symptoms are severe. The globe ruptures unless eviscerated.

MODERATELY RAPID ONSET

Endophthalmitis or metastatic ophthalmitis affects both eyes usually. It has been noted especially in patients who are recovering from cerebrospinal meningitis. The vitreous chamber is filled with exudate and the pupil is a creamy color. No other conspicuous ocular sign is present.

Iritis and iridocyclitis affect one or both eyes. The disease is secondary to syphilis, tuberculosis, diabetes and herpes and to focal infections from a large number of organisms and their products. The acute plastic form has a moderately rapid onset; the serous form is more insidious. In the former, pain in the eye, orbit or head in the distribution of the fifth nerve occurs early. Lacri-

mation is present in severe cases. Vision is blurred. The subconjunctival vessels surrounding the cornea are engorged, the cornea appears dull, whitish precipitates cling to its posterior surface and the aqueous is turbid. The iris is swollen and muddy; in some cases it is pale green. The pupil is contracted, irregular in outline and does not react to light; very frequently it is occupied by a dirty grayish exudate.

The chronic plastic form is usually seen as a continuation of the acute; the subjective complaints are less marked but the objective evidence is pronounced.

In the serous form, quiet iritis, the principal complaint is reduced vision. Mild symptoms can disarm the unwary. Many times ocular tuberculosis is the cause.

MODERATELY SLOW ONSET

Trachoma does not, of itself, cause blindness; its complications and sequellae do. Trachomatous pannus is a fringe of vertically disposed blood vessels that invade the anterior layers of the cornea from its superior border; this is diagnostic, especially in early stages. The affected area corresponds to the portion of cornea covered habitually by the upper lid; it becomes the site of recurring ulcers that heal and leave shallow pits.

Intercurrent infections often cause ulcers on the cornea. Superficial ulcers heal but leave defects that prevent light rays from entering the eye in a normal manner. Deep ulcers often perforate the cornea and allow aqueous humor to drain out; the iris is crowded against or into the perforation and heals there, eventually being replaced by connective tissue and forming an adherent leukoma. Now the iris occupies a plane too far forward so that the anterior chamber is shallow and secondary glaucoma a prospect. In other cases the cornea bulges outward as an ectasia or an anterior or corneal staphyloma.

When a nutritional disturbance such as vitamin A deficiency complicates trachoma, there is a dysfunction of the secretory glands of the conjunctiva; the foamy product cannot be removed by the tears and the resultant condition is known as xerophthalmia.

Deformities of the eyelids with trichiasis damage the corneal epithelium so that rays of light cannot pass into the eyeball in a manner to form images on the retina.

SLOW ONSET

Retinitis pigmentosa affects both eyes of predisposed persons between the ages of 20 and 30 years as a rule. Hereditary features are common, as is consanguinity in the parents. The visual field is contracted from the periphery inward until finally central vision is gone. The fundus picture is characteristic. Retinal pigment migrates to the anterior surface of the retina in clumps resembling bone corpuscles, especially about the retinal vessels; these vessels in time

become very fine and straight. Ascending atrophy of the optic disk is noted. Similar pigmentary degenerations of the retina have to be differentiated, particularly in patients with syphilis.

Intraocular tumors usually destroy the eyeball. The prognosis for life is grave.

OPTIC ATROPHY

Primary or simple atrophy of the optic disk occurs without antecedent changes in the nerve head; this is the type found in *tubes dorsalis*. Secondary, postneuritic or postinflammatory atrophy follows antecedent changes such as choked disk, optic neuritis, neuroretinitis and papillitis; as the products of inflammation disappear, connective tissue is deposited and obscures disk details. Ascending atrophy follows degenerative changes in the retina. The color of the disk is grayish in primary atrophy, whitish to creamy in secondary and yellowish to waxy in ascending. All are ultimately bilateral.

Hereditary or Leber's optic atrophy appears in both eyes of predisposed individuals between 20 and 30 years of age. Central blindness begins insidiously, spreads peripherally and progresses to total visual disability; recovery or arrest of the process is rare.

Trauma, as skull fracture, may damage or sever the nerve in the optic canal with resultant immediate loss of vision and early primary atrophy of the disk. The pupil dilates promptly when light is excluded from the sound eye, but this phenomenon usually can be demonstrated wherever complete monocular blindness exists.

In established glaucoma, the whole area of the disk is excavated as well as atrophied.

In all varieties except the hereditary, the loss of sight slowly progresses from the periphery of the visual field inward until central vision is lost. Perceptions of green, red, and blue disappear in that order. The pupils are dilated, unless the spinal miosis feature is present, and are often oval or irregular in form. In many cases the progressive changes noted in the disk do not coincide with the rate of visual loss.

GLAUCOMA

Glaucoma occurs in adults in two types, primary and secondary. The causes of the primary are unknown, while the secondary type is induced by some preceding disease. The primary type is subdivided into the acute and chronic inflammatory or congestive forms and the simple, non-inflammatory or non-congestive form; all primary varieties finally resolve into absolute glaucoma. Hereditary features may be present.

Primary inflammatory or congestive glaucoma rarely occurs before the age of 35 years. In the acute form it is usual for one eye to be attacked so severely that the other eye is inconsiderately ignored. The attacks are prone to occur at night. Pain is generally the first symptom and often is quite intense; it radiates from the eyeball over

the side of the head. When nausea and vomiting are associated, the diagnosis sometimes made is biliousness, neuralgia, migraine or hemicrania. Attention to other symptoms helps to avoid the error. Lacrimation is present in severe attacks. The cornea is edematous, steamy, lacks lustre and is insensitive; the end of a thread can be drawn across it without resentment. Vision is reduced. The eyelids are puffy and the conjunctivae are red. The anterior chamber is shallow. The pupil is dilated, irregular or oval in outline and contracts poorly or not at all to bright light. The globe feels hard to gentle palpation. Iritis and iridocyclitis and glaucoma secondary to them are to be differentiated.

The purpose of treatment is to contract the pupil as rapidly as possible to shorten the attack. Pilocarpine in one percent or eserine (physostigmine) in one-fourth per cent solution is to be instilled one drop at intervals of ten to fifteen minutes until the pupil begins to contract; if no contraction can be found after eight to ten hours it is improbable that miotic drugs can be effective. Almost continuous application of the ice bag is sometimes helpful. The other eye should be inspected frequently for signs of the disease.

Chronic inflammatory or congestive glaucoma follows attacks of the acute, but is attended by much less violence. The pupil is dilated and fails to contract to bright light. Recurring morning headaches of a few hours duration are common; coincidental with the headache some symptoms of the acute form probably will appear, but in milder degree. The chronic is more insidious than the acute form and very frequently is not given the attention it deserves.

Chronic simple, non-inflammatory or non-congestive glaucoma occurs at any age after puberty. It is bilateral but does not necessarily attack both eyes at the same time, to the same degree, or progress equally in the two. The principal symptoms include increased intraocular tension, shallow anterior chamber, dilated pupil that responds feebly or not at all to bright light, reduced peripheral and central vision and frequent changes in refraction.

Absolute glaucoma is the terminal stage of any primary form. The eye is painful and tender to palpation. The anterior chamber is very shallow. The pupil usually is dilated, oval in form and does not react to bright light. The conjunctivae have a tawny color and their vessels are engorged. Cataract is a common complication. The globe is stony hard and the patient is "stone" blind.

Secondary glaucoma is a complication of or a sequella to some recognizable disease of the cornea, iris or ciliary body, or arises in consequence of intraocular tumor or hemorrhage or of contusions or penetrating injuries of the eyeball. The symptoms, in general, are similar to those of primary types, in addition to those of the antecedent disease.

CATARACT

Senile cataract is so designated because it occurs mostly in persons who are past middle life. Possibly uncomplicated would be a more descriptive term. The chronological age seems to be of less significance than the organ and tissue age of the individual; for instance, occasionally only one eye is affected and it is rare that both lenses are attacked simultaneously, that opacification progresses equally or that maturity of the cataracts is attained at the same time. This type offers the best prognosis for vision after removal from the eye. It is not essential that a senile cataract be ripe or mature for successful extraction.

Complicated cataracts are found in association with systemic diseases and with certain diseases of the eye. A patient who has diabetes is more prone to have cataract than one who has not, but true diabetic cataract is bilateral and occurs in younger people. Cataract has appeared in persons who had used dinitrophenol for reduction of weight. Its incidence is frequent in cases of tetany from disease or injury of the parathyroid glands. It has been observed to follow a number of diseases of the eye, among which are inflammations and ulcers of the cornea with or without perforation, chronic iridocyclitis, uveitis, high degree myopia, glaucoma, retinitis pigmentosa, detachment of the retina, intraocular tumors or hemorrhages, diseases of the vitreous humor and dislocation of the lens.

The fundus cannot be visually examined in the presence of complete cataract, consequently diseases of the choroid, macula lutea, retina and optic nerve cannot be wholly excluded, even though tests of function appear favorable. Associated diseases warn the physician against giving an unqualified favorable prognosis.

Traumatic cataract has developed subsequent to many kinds of injuries. A blow on the eyeball or even on the head can be followed after some weeks or months by cataract. Electric shock by high voltage in a current or by lightning, heat rays, röntgen rays and emanations of radium can cause opacities in the lens. Direct damage may occur when a foreign body penetrates the globe, and a small body can be retained in the substance of the lens; a partial or complete cataract may be expected. Eye injury cases usually and promptly develop inflammatory reactions within the eyeball; opacities in the lens may appear within a few hours or be delayed for some months.

Cataract is characterized by a gray or white round pupil that contracts to light, but ought never be diagnosed positively without an indicative history of slowly failing sight, unsatisfactory experiences with changes of glasses and examination with the ophthalmoscope and, if available, the slit lamp. Glaucoma, iritis, optic atrophy and other ocular pathology should be excluded or assigned to their proper places in the clinical ensemble when they

are present with cataract. *It is especially important always to look for glaucoma.*

DIFFERENTIAL SUMMARY

Optic atrophy, glaucoma, and cataract are prevalent blinding conditions of slow onset and mostly bilateral. The first two are difficult to diagnose when complicated by the third.

Optic atrophy: The pupil is dark to gray, dilated, irregular or oval in outline and contracts poorly if at all to bright light. The visual field contracts progressively from the periphery, about equally for all radii, until central vision is lost. Inspection of the anterior parts of the eye is negative, except for iris atrophy in late stages.

Glaucoma, chronic: The pupil is grayish green to dark, usually dilated, irregular or oval in form and contracts feebly if at all to bright light. The visual field contracts progressively from the periphery, but more rapidly on the nasal side, until central vision is lost. Inspection of the anterior parts reveals signs of chronic inflammation of the conjunctivae, and iris atrophy in late stages.

Cataract, uncomplicated: The pupil is gray to white, of normal size, round, and reacts promptly to bright light. The visual field is ample when tested with a light in a darkened room. Inspection of the anterior parts is negative, except for the gray or white pupil and an appearance of iris atrophy in aged persons.

Cataract must be differentiated further from iritis and senile sclerosis of the lens.

Iritis, including iridocyclitis: The pupil is contracted, distorted in shape and does not contract to bright light; it is dirty gray to white when occupied by exudate. The visual field may or may not be impaired. Inspection of the anterior parts shows the iris to be swollen or of a muddy appearance or of a pale green color.

Senile sclerosis of the lens: The pupil is gray or pearly by reflected light, contracted, round, and reacts normally to light. The fundus can be seen with the ophthalmoscope, the visual fields are full, and the patient sees.

CONCLUSION

Diagnosis of the cause of blindness means the identification of whatever conditions are present to prevent the formation of visual images or the patient from seeing them. All abnormalities should be sought out and cataloged in their most probable relation to each other. The presence of multiple conditions requires the determination of which one was most likely primary, original or first-to-be-present, and which of the others were secondary, complicating, or incidental conditions. The etiology or cause of a blinding condition ought to be ascertained.

The two eyes of a pair should be studied individually; often they have differing conditions and etiologies to explain their blindness.

23 East Ohio Street.

BLINDNESS IN ADULTS DUE TO INJURY

C. P. CLARK, M.D.

Indianapolis

The section of the subject assigned to me is that of "Blindness in Adults Due to Injury." I am unable to give data from our own state because the state departments have not compiled statistics upon this subject as has been done for several years in some of the larger eastern industrial states.

Several states have useful records of ocular injuries and visual impairment from industrial causes. The National Society for the Prevention of Blindness supplied some concise information relative to eye injuries in some of the states. Ohio, New York, Pennsylvania and New Jersey keep excellent records of such injuries. The State of Ohio maintains tabulated information in regard to all industrial injuries of the eyes whether there is any impairment of function or not.

It is estimated that 3,000,000 accidents occur per year in the United States; 300,000 are ocular accidents that incapacitate the worker for one or more days; 2,000 eyes are lost per year; 75 persons lose both eyes. The percentage of ocular accidents to all industrial accidents varies in different states from 9 to 20%.

I obtained data concerning industrial accidents, since these are reported to the respective state industrial commissions when there is either loss of time or permanent impairment of function. For obvious reasons it is impossible to determine the number or percentage of non-industrial ocular accidents such as those that occur about the home and in occupations that do not come within the province of the industrial commissions. The National Society for the Prevention of Blindness tabulated for a five-month period the non-industrial accidents in the City of New York. The information was derived principally from the daily press. There were 314 persons injured and blinded in one eye. Table I shows that flying fragments of wood, glass, steel, and other substances account for 39% of these injuries. Traffic accidents are next with 11%. Then there were other accidents such as explosives, injuries with guns, chemicals, etc., in lesser percentages. Fourth of July injuries blind a number of persons every year in the United States.

TABLE I.

NON-INDUSTRIAL EYE ACCIDENTS TO ADULTS

5 months	314 persons	Per cent
Flying Fragments (wood, glass, steel, etc.).....		39%
Traffic accidents		11%
Explosives (dynamite, gasoline, chemicals).....		10%
Guns		10%
Hot substances, chemicals.....		8%
Sharp and pointed objects.....		8%
Assaults		5%
Games (excluding hunting)		4%
Falls		3%
All other causes		2%

The non-industrial accidents that I have attended in my own practice comprise such as an injury from a piece of wood while chopping; injuries from guns, from tacks, from chemicals, such as lime and acids; the explosion or perforation of the compressor tank in a domestic mechanical refrigerator; burns from curling irons; lacerations from the edges of newspapers; abrasions of the cornea from a child's fingernail, and other injuries from handling knives and pointed articles. Traffic accidents account for a number of blinded eyes from injuries of the skull and from broken glass. In my own practice, it was not unusual for me to see from six to twelve persons every year who had one eye seriously impaired or entirely blinded from broken windshield glass before non-shatterable glass was used in cars. Traffic accidents are responsible for a number of persons being partially blinded in one or both eyes from hemorrhage into the visual pathways or visual centers of the brain when the skull is fractured.

TABLE II.

Permanent Disability—Pennsylvania—1916 to 1936			
All types of injuries.....	50,127		
Eye injuries	10,548	21%	
Eye injuries—compensation costs.....	\$15,933,164		
Eye injuries—compensation costs of total.....		28%	
One eye lost	9,831		
Both eyes lost	628		
One eye lost in addition to other injury	89		

The State of Pennsylvania, for a period of 20 years, from 1916 to 1936, reported that 50,127 persons had received industrial injuries of all types. Of this number 21%, or 10,548, were eye injuries. One eye was lost in 9,831 instances. Both eyes were lost in 628 instances. The money expended during this period for compensation of eye injury cases amounted to \$15,933,164. This was 28% of the total expenditure of \$56,472,733 for all industrial injuries.

Some states, such as New York, Pennsylvania, New Jersey, and Ohio, each have a much greater industrial population than other states such as Kansas, Nebraska, and Idaho where the chief occupation is agriculture. It is estimated that 60% of all industrial ocular injuries occur in the metal industries, while the building trades account for 7%. Small flying objects are responsible for 90% of all industrial ocular injuries.

Tabulations from the State of New York show that the number of eye injuries per year varies in that state from 1,633 to 3,015, depending upon employment. Of the causes, it is found that indefinite flying particles head the list, having a percentage of approximately 30. Hand tools are second, with machines and chemicals next in order.

The eye is well guarded against injury by the

TABLE III.
CAUSES OF COMPENSATED EYE INJURIES

Cause of Injury	New York State					
	Average					
	July 1, 1925 to June 30, 1930	1930	1931	1932	1933	1934
Total Eye Injuries.....	2,974	3,015	2,539	2,136	1,744	1,633
Hand tools	749	756	667	549	436	400
Machines	468	406	272	228	176	160
Harmful substances (lime, acid fumes, etc.)	480	491	443	390	276	268
Explosions, electric- ity, hot sub- stances	210	210	152	132	99	94
Handling objects other than hand tools	113	128	90	100	55	45
Indefinite flying particles & other indefinite causes	797	851	755	604	582	551
All others (falls, elevators, etc., vehicles, falling objects & striking objects)	157	173	160	133	118	115

lids, overhanging eyebrow and bony orbit. Eyes placed prominently in the orbit suffer many injuries that the opposite anatomical condition prevents. A vertical section through the eye and orbit will show how injuries of the cornea are the most common of all because of its exposed position. The cornea is liable to receive an injury by a foreign body being embedded in the tissue, an abrasion, or contusion, laceration by broken glass, a penetrating wound, or a chemical burn.

All foreign bodies should be promptly and carefully removed. Penetrating wounds and intraocular foreign bodies create great havoc. Where the cornea is penetrated and the lens capsule ruptured, a traumatic cataract will result. The function of the eye will be industrially useless even though the eyeball be retained and good vision restored with a lens correction after removal of the cataract. This is due to the fact that we are as yet unable satisfactorily to blend the images where one eye is aphakic and the other is not. Such an eye is useful to the individual by having a peripheral visual field on the side of the injured eye, but he is compelled always to depend upon the uninjured eye for his industrial vision. If anything baneful should occur to the second eye later in life, then it would be possible to use the proper optical correction over the eye that was first injured and thus enable the individual to have a fair measure of industrial visual efficiency.

Intraocular foreign bodies always constitute a major calamity. Most of these are of metal and are magnetic. Many of them are recoverable with the electro-magnet. Some of the alloys used in industry are not magnetic, and a foreign body of that nature will have to be removed by other methods. Where an iron substance remains in the eye for long, the condition known as siderosis

TABLE IV.
CAUSES OF COMPENSATED EYE INJURIES

Cause of Injury	New York State					
	Per cent					
	July 1, 1925 to June 30, 1930	1930	1931	1932	1933	1934
Total Eye Injuries.....	100%	100%	100%	100%	100%	100%
Hand tools	25	25	26	26	25	24
Machines	16	14	11	11	10	10
Harmful substances (lime, acid fumes, etc.)	16	16	17	18	16	16
Explosions, electric- ity, hot sub- stances	7	7	6	6	6	6
Handling objects other than hand tools	4	4	4	5	3	3
Indefinite flying particles & other indefinite causes..	27	28	30	28	33	34
All others (falls, elevators, etc., vehicles, falling objects & striking objects)	5	6	6	6	7	7

develops. The epithelial tissues of the eye become impregnated with the products of oxidation, the iron oxides. The cornea, iris, and lens have a peculiar brown color. The retina becomes impregnated with iron oxide. This destroys the ganglion cells of that structure and, of course, destroys the vision. The lens in such an eye eventually becomes cataractous.

A penetrating wound through the ciliary body of the eye has grave consequences. The injured eye may remain in a state of chronic inflammation with reduction or total loss of vision, but this may not be the only loss to the patient. The uninjured eye may develop sympathetic ophthalmitis and be reduced to blindness. Then the individual has been blinded in both eyes as the result of an injury to one eye. To prevent this tragedy, the injured eye should be removed before the second eye becomes involved. One can follow the rule that if an eye has received a penetrating wound through the ciliary body area, and the vision is either reduced to form and light perception or totally abolished, and if the eye remains chronically inflamed and painful, then the injured eye should be removed in order to preserve the fellow eye.

I have given you some idea of the number of ocular accidents, particularly industrial accidents, in the United States, and some idea about their economic importance. I wish to add that 60% of all industrial ocular accidents occur in metal industries. The building trades account for 7% of the total. Flying objects account for 90% of all ocular injuries. The average cost of eye injuries where the vision is not impaired is \$375 each. The average compensation for loss of one eye is \$1,900. There is an estimated annual loss of 3,600,000 working days from ocular accidents. The cost in

loss of working time, compensation, and medical bills amounts to \$50,000,000 per year.

What can be done about it? We can hardly expect to prevent all eye accidents, but the number of these accidents can be reduced. The field offering the greatest possibility in this regard is with the industrial population.

Accidents and visual impairment can be prevented in various ways:

First. By having all employees examined by a competent physician before employment is begun so that the employee can be given work suitable to his physical ability as well as to his mental capacity. The custom which is now followed in some plants is to have a so-called survey made of the vision and ocular condition of the employees by a non-medical examiner. Where such surveys are made by a person who is interested in selling as many glasses as possible, the practice is to be condemned. Such a survey does not include a medical examination of the eyes. Both the employees and employer lose by such procedure and the employees are not offered adequate protection for their eye sight and safety.

Second. The workers in each plant should be taught proper safety methods and principles. They should wear approved goggles whenever they are around any dangerous machine or chemical. At the present time most organizations furnish goggles to their employees and request their use. An accident often occurs when the worker raises his goggles for a moment, because of dust and perspiration collecting on them, and is struck by a flying object during this interval.

At one time I was in the medical department of a large eastern chemical company. In certain buildings where dangerous chemicals were handled, all employees were required to wear goggles all of the time. This rule was strictly enforced and it was a standing order that any employee, regardless of his position, would be immediately dismissed if he were in any of those buildings without goggles properly adjusted over his eyes. It was only by the strict enforcement of this order that serious eye injuries were eliminated from those departments.

Third. There are many manufacturing steps in every plant that could be improved, relative to the safety of the workers, by an alert safety department. It should be the duty of the safety department head to study ways and means to prevent the repetition of accidents. For an example, there is one simple thing that I have observed to occur in a few plants in Indianapolis that causes embedded foreign body injuries of the cornea. A machinist, in cleaning up at the end of the day's work, uses an air hose to blow the material from his bench. Another employee in a different part of the room receives an injury of the eye from a flying foreign body.

All machines used for grinding or lathe work should be protected by proper guards to prevent particles of metal from being thrown about haphazardly.

Fourth. The fourth step would be for each plant to have a capable first aid department, so that an injured employee may receive prompt and proper medical care.

COMMON CAUSES OF EYE INJURIES IN CHILDREN*

Ways to Avoid Them

HAMILTON ROW, M.D.

Indianapolis

The problem of the care of infants' and children's eyes is a very broad one, starting, in fact, before the birth of the child, with an investigation of the physical soundness of the expectant mother as soon as the pregnancy is known to exist. Much can be accomplished through proper diet and care of the mother's general health. Systemic disease should be diligently searched out at this time or, better still, before conception. Suitable treatment of an anemia, tuberculosis, nephritis, diabetes, syphilis or other disease in the mother may determine the vitality of the babe when it is born, including the soundness of the ocular apparatus and eyes, which, incidentally, are of the early recognizable structures in the developing embryo.

At the time of birth the use of silver nitrate in

the eyes of the infant is most important. Infrequently, those of the laity have the false conception that such drops are used only to prevent the development of a gonorrheal infection in the eyes of the new born. Many cases of ophthalmia of the new born are not due to the gonococcus, but to other common germs. This fact, if generally known, should eliminate from the minds of the occasional objectors any feeling of false pride, and make them realize that their attending doctor is in fact remiss, and the parents very foolish, if no such drops are used. Tremendous strides in the reduction of infant blindness have resulted since the general adoption of this measure.

I have included the foregoing subjects because of the importance of the fact that if a child can have a good pair of eyes as he starts life, at least one bridge is safely crossed in the visual trail from infancy to adult life.

There are three ways in which to consider any

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subject of eye injuries in children and adolescents. First: We can go to one extreme and see all playthings as potential injurious agents to the eyes. Second: In the other extreme we may listen interestedly to an account of what causes the majority of eye injuries and then hope to be spared any of the consequences as outlined. Third: We may take a reasonable, analytic view of the problem. If the more common childhood causes of blindness by injury are known, thoughtful parents and teachers can benefit children by educating them in avoiding such devices.

There is slight hazard to the child's eyes until he is old enough to begin moving about under his own power, except in cases where there are older children in the household who may bring sharp pointed objects to the younger child. Scissors with sharp points are particularly dangerous, the more so because there are usually a pair or more carelessly disposed in sewing kits or table drawers, easily accessible to the enterprising, active youngster.

Usually eye hazards become a serious consideration for the child by the time that he is three or four years old. The chief responsibility in avoiding accidents lies, of course, with the parents. What, then, are the objects known to be responsible for eye injuries in children, and what is the frequency of occurrence of the various types of such accidents?

By collecting newspaper clippings from over the entire country, on eye injuries in children, over a period of months, the National Society for the Prevention of Blindness was able to gather statistics which give the relative frequency with which the various types of accidents occur. These figures show that weapons form the group which constitute the greatest source of danger, causing just about one third of all eye accidents in children. Of this group, air rifles, BB guns, shotguns, and small calibre rifles cause about forty out of every hundred such accidents, blank cartridge and cap pistols cause ten out of every hundred; sling shots and rubber band flippers cause twenty out of every hundred; the other thirty of the hundred are caused by stones and other missiles, arrows, tear gas guns, and home made guns and cannon.

The problem of weapons has been partially solved by some communities where ordinances are enforced forbidding the sale of BB guns and air rifles, but parental action in this field is the most effective measure of control of the young would-be Indian, cow-boy and bandit. Remember, also, that cap pistols are not without danger, since parts of the exploding caps fly out at times with disastrous results to the child's eyes. Sling shots, rubber band flippers, and darts with pins in the ends should all be on the prohibited list.

Next in importance to the general group of weapons are fireworks which cause about one-fourth of all eye accidents in children. Firecrackers are responsible for slightly more than half of the fireworks accidents, with torpedoes and

bombs causing about one-third, and unspecified and night fireworks causing the remainder. Although fireworks as a group appear to cause relatively fewer eye accidents than weapons, it must be remembered that fireworks are in evidence, at most, for about a week in each year throughout the nation, namely during the Fourth of July celebration, and also for a similar period during the Christmas celebrations in the South.

Effective efforts are being made in many cities to reduce the fireworks casualties by requiring that all the fireworks displays be in the hands of experts who are licensed, and prohibiting the sale of firecrackers or other fireworks to anyone who holds no such license. The objection to such local legislation has been that neighboring towns will sell what the city merchants cannot, and that people will smuggle fireworks into the restricted zone anyway. As this argument has some truth in it, it is probable that only through state or nation wide laws may effective control of the fireworks problem be accomplished. However, that local laws have been strikingly effective in reducing Fourth of July accidents is shown by figures from Milwaukee where an ordinance which became effective in 1935, prohibiting the display, sale and use of all forms of fireworks, except those sold for and used in connection with licensed and supervised displays, resulted in a reduction of fireworks casualties in that city from 190 in 1934 to 5 in 1935. No doubt public opinion and civic cooperation had much to do with such a marked turning of the tide toward a more safe and sane Fourth in Milwaukee but it shows what can be done, not only in Milwaukee, but in any other community of comparable size with everyone cooperating. As has already been aptly stated, "We must take the RIOT out of PATRIOT."

The general grouping of explosives is responsible for another ten per cent of eye accidents in children. These—dynamite, gun powder, chemicals used in experiments, and other explosives, including gasoline and pop bottles—are distinctly not fairly to be considered as fireworks, although many of these accidents may have been the result of a youthful effort to create a loud bang.

Sharp pointed objects account for another eleven per cent of eye tragedies in youth. Knives, scissors, sticks, nails, wires and hooks are all potential destroyers of sight. Home training and instruction of children in the danger of such objects as playthings can and should be carried out by all parents, and the grade schools should have special class instruction of a like nature. The latter method, being more easily organized, seems a logical starting place for such efforts.

Flying fragments of steel, wood, glass, sand and other small materials of a similar character account for another eight per cent of eye accidents in children, as gleaned from the news sheets of the country. As in the case of sharp pointed objects, the schools can do much in teaching the lower grade pupils of the hazards to their eyes

from hammering on such brittle and hard material as steel and glass. Responsibility for the preschool children is, of course, in the hands of the parents.

Games and sports, which include fishing and swimming, and such playtime paraphernalia as base balls and bats, golf balls and clubs, horse shoes, and spinning toys like tops and propellers, are responsible for another five per cent of eye accidents. These are not so easily dealt with as the foregoing, but teaching respect for the rights of others and encouraging good sportsmanship in play suggest themselves as favoring fewer accidents in sports in general.

Automobile accidents, in spite of their yearly increase, account for only three and a half per cent of eye accidents in children. The use of safety glass in automobiles, and less wood in car body construction, with consequently fewer flying splinters of wood, have no doubt resulted in fewer eye accidents than one might expect in this field.

Falls, and burns from both heat and chemicals, and all other causes, account for the other eight and one-half per cent of eye accidents in children. In the household, care should be taken to keep such caustics as lye well covered and in places not easily accessible to children. A lye burn is probably the most destructive and serious type of chemical burn we have to deal with in eye injuries. In any case of acid or other chemical substance in the eye, the very first thing to do, even before calling for the doctor, is to wash the eyes immediately with tap water, using lots of it.

I believe the schools could be of great help in preventing the foregoing types of injuries through the showing of moving pictures depicting eye accidents, and possibly supplementing these with actual accounts of such tragedies, and, if feasible, by presenting some of the pitiful cases that are the result of carelessness.

The distress, anxiety and confusion that follow immediately upon the heels of a painful eye injury can easily lead to well-meant but disastrous first aid efforts. It is well to remember that when acids, alkalies or other chemicals have been splashed or otherwise introduced into the eyes, their immediate and thorough irrigation with as much as a pint of common tap water may mean the difference between subsequent healing and blindness. The obvious reason for this prompt action is to flush out, from between the eye lids and the eye ball, the concentrated offending substance. It is necessary to separate the eye lids by elevating the upper and depressing the lower lid in these cases, while the water is being poured from a tumbler, cup, pitcher, or any other container at hand, so thoroughly that the entire surface of the eye ball and lids may be completely rinsed.

A not unheard of household accident is that of instilling into an eye the wrong medicine. Thus, tincture of iodine has been mistakenly used in place of a solution of argyrol; phenol has been dropped into the eye with disastrous results. Prompt flush-

ing of the eye with water, in such cases, frequently saves the eye from destruction. These accidents are most easily avoided by having poison labels on the potent drugs in the medicine chest and reading the label before using.

When there is an eye accident from flying fragments or sharp pointed objects, perforation of the eye ball is potentially a result. In such cases it is most important to avoid any pressure on the eye or eye lids, as pressure on a punctured eye may further damage or completely destroy it through prolapse of its delicate internal elements.

As regards the actual number of eye injuries in children occurring yearly in this country, figures are lacking. A great many such injuries are not made a public record through the newspapers. It is my own, and I think most oculists' experience, that only the occasional eye injury is generally known outside our office or hospital records. For example, on July 5th, 1934, people throughout the nation read in their papers that this was the safest Fourth in many years, and that there had been only one death due to fireworks. However, the National Society for the Prevention of Blindness have in their records the names of twenty-nine persons who died as the result of fireworks accidents while celebrating the Fourth of July, 1934.

We know that the five hundred children, pupils in blind schools and classes throughout the country, whose blindness is due to accident, are joined by seventy more each year.

This paper has not attempted to go into the need for any legislation in controlling the sale of dangerous childhood playthings for, although such measures are manifestly needed, it has seemed that they should be originated through other channels. The purpose here has simply been to indicate the greatest sources of peril to children's eyes, and to suggest certain means of cooperation between those most interested in child welfare—their parents and their teachers—in supervision of children's playthings, and education of the children themselves to harbor a wholesome fear of such objects as weapons, fireworks, explosives, and sharp pointed instruments.

23 EAST OHIO STREET.

MEET YOUR FRIENDS

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MURAT THEATER—INDIANAPOLIS



OCTOBER 4, 5, and 6

CONSERVATION OF VISION

J. V. CASSADY, M.D.

South Bend

Preventive medicine has been mainly interested in the control of communicable diseases until recently when it, now in its broader sense, is including the prophylaxis of injury and disease of every kind at every stage of life from antenatal development to old age. The public is expecting the medical profession to use the sum of medical knowledge built up through volumes of literature of various diseases to improve the general physical well-being of the individual and produce a healthier, longer, and happier life. The United States Public Health Service, state and local health organizations, have taken active parts in the campaign against trachoma, ophthalmia neonatorum, and venereal diseases. The "American Society for the Prevention of Blindness" is attempting to educate the public in the conservation of vision. Schools are taking an active interest in preventive medicine, particularly along the lines which I intend to discuss in this paper, the conservation of vision. The medical profession knows that many eye diseases may be prevented by a little foresight and care. The public is ready for the physician to do more toward preventing disease. We are in a transition period. The physician of the future must take the lead and direct the disease prevention campaign or social agencies will do this without medical supervision.

Conservation of vision should begin in the prenatal period if it is to be as inclusive as possible. Many of the congenital eye defects, such as congenital cataracts, anophthalmos, coloboma of the uveal tract, and myopia could be prevented, or at least controlled, by eugenics and prenatal direction and care.

At birth, the eyes are particularly susceptible to infection. The severe infections are usually due to gonorrheal organisms which cause ophthalmia neonatorum, often resulting in permanent loss of vision. It has been estimated that from 25 to 30 per cent of blindness is caused by gonorrheal ophthalmia. This is a preventable disease, and although it has been largely controlled by the use of Credé's method of prophylaxis, it is still too frequent. Continued care and more widespread knowledge of the importance of getting the eyelids open for instilling the prophylactic silver nitrate drops is necessary to completely eradicate this disease.

The eye is imperfectly developed at birth, the lower end of the lachrymal duct is often unopened, the medullation of the optic nerve fibres is not complete until ten weeks after birth, the macular region is thicker than the rest of the retina until the eighth month, the macula is a shallow depression at birth and its development is not complete until the sixth month, the motor coordination of the eyes is only partially developed,

and fusion does not develop till ten to fourteen months of age. When a child's eyes water and the tears are not carried away through the lachrymal ducts, an infection of the lachrymal sac develops. The lachrymal ducts are formed by buried epithelial strands which canalize at birth. Occasionally the lower end of the duct fails to open, a membrane persisting across the naso-lachrymal orifice. This may require probing by the passage of a lachrymal sound to force it open. It should be done as early as the condition is recognized, and not wait until a lachrymal sac infection, which is much more difficult to cure, develops.

During the first six months of age, the visual axes of the two eyes may not be parallel, due to the delay in full macular development. The coordination of the ocular muscles and the development of the fusion faculty is ordinarily not perfected until ten to twelve months of age. If a child is eighteen months to two years of age without parallel visual axes, his eyes should have a thorough examination by an oculist. A careful examination of the fundus and an atropine cycloplegic refraction should be done to determine the cause of his squint. Too often parents like to be encouraged to disregard a crossed or cocked eye with the advice and hope from the family physician that the child will outgrow this defect. The latter doesn't happen, but exactly the reverse occurs. The child develops monocular instead of binocular vision, losing the vision of the squinting eye, or, at least, developing an alternate type of vision and a lack of development of the fusion faculty. In a recent survey at an Indiana State Fair, 90 per cent of the people examined had some eye defect. One of the most frequent defects, a failure to develop perfect binocular vision, is preventable at this period when the eyes should be starting to fuse images. The conservation of vision program requires an early development of this faculty. It is much more difficult and often impossible to develop when the child is at school age. Again, preventive medicine rather than curative medicine should be instituted to conserve vision. The combined cooperation of the family physician, the pediatrician, the parents, and the oculist is needed in early, complete and persistent effort to produce binocular normal vision, with fusion and depth perception for the child. Glasses, fusion training, occlusion of the dominant eye, and other means are used to direct progress toward this goal.

A statistical study in the United States shows that, starting with no myopia under five years of age, 8.1 per cent of eyes among children between five and ten years of age are myopic. Thereafter, the proportion increases until at twenty years

of age it is 25.7 per cent. From the above figures it must be assumed that at some time during its development, myopia must be progressive. At birth the eyeball is comparatively short, 16 to 17 millimeters in its anteroposterior diameter, and is hyperopic. It gradually increases in size until eight or nine years of age when it reaches its adult 24 millimeter length. The hyperopia decreases during this period until emmetropia or myopia develops. If the elongation continues, the tunics of the eyeball get thinner, pathologic changes develop, and progressive myopia occurs. Under congenital or hereditary defects, myopia was mentioned because it is often familial. German and Jewish people probably have a greater tendency to develop it than other races.

Myopia is a disease which can be prevented in a great measure, or, at least, much can be done to arrest its progress. It appears and progresses during childhood and every child should be entitled to the precautions necessary to prevent its progress. It may be due to some other causes, but it is usually the result of excessive use of the eyes for near work, especially excessive convergence, favored by poor light or imperfect vision from any cause. Too early school life, imperfect lighting, stooping over work, reading in bed or on the floor, and small print in books and magazines should be guarded against during this pre and early school period. A healthy physique, attention to the general health, proper illumination in homes, playrooms and schools, encouraging outdoor life until seven or eight years of age, school type desks for home reading or writing, a systematic examination of every preschool child for eye defects and their early correction with glasses, are some of the measures that would reduce the incidence of myopia, or at least, its progress.

Artificial illumination has developed through the wood fire, the oil lamp, the candle, the gas lamp, the arc lamp, the incandescent lamp with carbon filaments, to the modern electric reading lamp. Reading in dimly lighted rooms, or at dusk,

or with insufficient illumination is injurious to the eyes. Reflected light from water or snow, or exceptionally bright light is injurious to the eyes. In reading, the light should be over the left shoulder, producing no shadows, and should be of sufficient intensity to clearly visualize the print or close work twenty inches from the eyes. The amount of illumination needed for this varies with the size of the print or sewing and the contrasting substance. Black thread on a dark background is more difficult to see than Bible print and requires more illumination. Reflected light is better than direct light if the illumination is equal, and an unglazed surface with the reading material in an inclined position is better than having it on a flat table or desk.

The print in school books, especially for small children, should be sufficiently large so that it can be seen easily at twenty inches from the eyes. Any books, magazines, or papers that the small child uses should be of this same type. Newspapers are striking examples of poor print. Ten-point type should always be used in books for young children, or at least eight-point, provided the face of the type is heavy. The surface should be dull, not glossy, and the lines should be 2 millimeters apart.

Protection of the eyes from accidents and injury is as essential in public life as it is in industry. Definite safeguards should be taught the child as they are taught the worker in industry. Care during infectious diseases, the effect of bright lights, the contagiousness of eye infections, the injurious effect of flicker, reading in moving vehicles, as in street cars where the focus is changing constantly, and the limitation of use of the eyes when they are tired are all factors that should be general knowledge for the public. "The future livelihood, appreciation and enjoyment of all beauties of creation depends upon the preservation of good eyesight." To conserve vision let us make it of universal interest, aid the agencies already existing for the purpose, and use the facilities we already have to accomplish this end.

INDIANA'S PLAN IN REGARD TO CONSERVATION OF EYESIGHT

1. Ophthalmia Neonatorum. Prevent by prompt instillation of silver nitrate, 1% or 2% solution, into the eyes of the new-born.
2. Squint or crossed eyes. Begin treatment not later than age two.
3. Discourage the use of high explosive fireworks in the hands of children. Reduce Fourth of July eye injuries.
4. Examination of school children for visual defects.
5. Avoid eyestrain. (A) Correct visual defects. (B) Prevent and treat diseases of the eye. (C) Install proper lighting. (D) Reasonable use of the eyes according to effects of use.
6. Help reduce hazards from industrial accidents.
7. Early detection and treatment of syphilis will reduce blindness.
8. Wipe out trachoma in Indiana.

A FRACTURE TRACTION APPARATUS FOR THE GENERAL PRACTITIONER

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The first ideal in fracture treatment is exact reduction of the displaced fragments. The apparatus to be described in this paper greatly facilitates reduction of fractures of the wrist or fractures of the shaft of one or both bones of the forearm. It comes nearer to fulfilling this ideal in fracture treatment of the bones of the wrist and forearm than most methods now in use by general practitioners.

The technic to be presented converts the treatment of these fractures into a procedure capable of being carried out by one individual, the services of an assistant not being required. This should be of special value to the general practitioner, particularly the practitioner in rural communities often located some distance from a hospital or colleague. Fracture of the distal end of the radius is, next to the ribs, the most common form of fracture with which the doctor has to deal and one which is all too frequently poorly reduced. Since these fractures are so generally treated by the first physician to whom the injury is brought, the obvious need for the method here advanced can readily be understood.

APPARATUS

The finger-trap traction machine devised¹ for reduction of the wrist and forearm fractures is illustrated in Fig. 1. It consists of two duralumin

¹ Acknowledgement and proper credit is here given to Dr. R. A. Griswold, head of the Department of Surgery, University of Louisville School of Medicine, on whose fracture service at the Louisville City Hospital the apparatus was devised and constructed.

cast blocks as a base which are connected by two stainless steel bars capable of being extended to any required length to accommodate the length of the patient's forearm. Set-screws lock the extension bars at the desired length. The proximal end of the machine consists of two upright curved pieces of cast duralumin, one connected to one of the extension bars by a set-screw and the other anchored permanently to the proximal duralumin base. These upright curved strips of duralumin serve as braces to hold the upper arm and elbow of the patient at right angles to the forearm and so supply counter-traction during the reduction of the fracture.

The distal portion of the machine has a stainless steel upright to which is fastened at right angles a cross bar with wire finger traps attached by a system of pulleys. The middle of the cross bar is connected to a threaded bar passing through the stainless steel upright. Both cross bar and threaded bar may be rotated through 360° by means of their attachment through the stainless steel upright holding them. The threaded bar is about twelve inches long and is in the long axis of the bone to be reduced. It is fitted with a duralumin cast wheel about three inches in diameter which, working by screw action on the threaded bar, can with easy turning bring any desired amount of traction on the forearm.

The whole machine weighs but twenty pounds, making it conveniently portable. It may be easily used in the office with the patient lying on the ordinary examining table and the apparatus on a

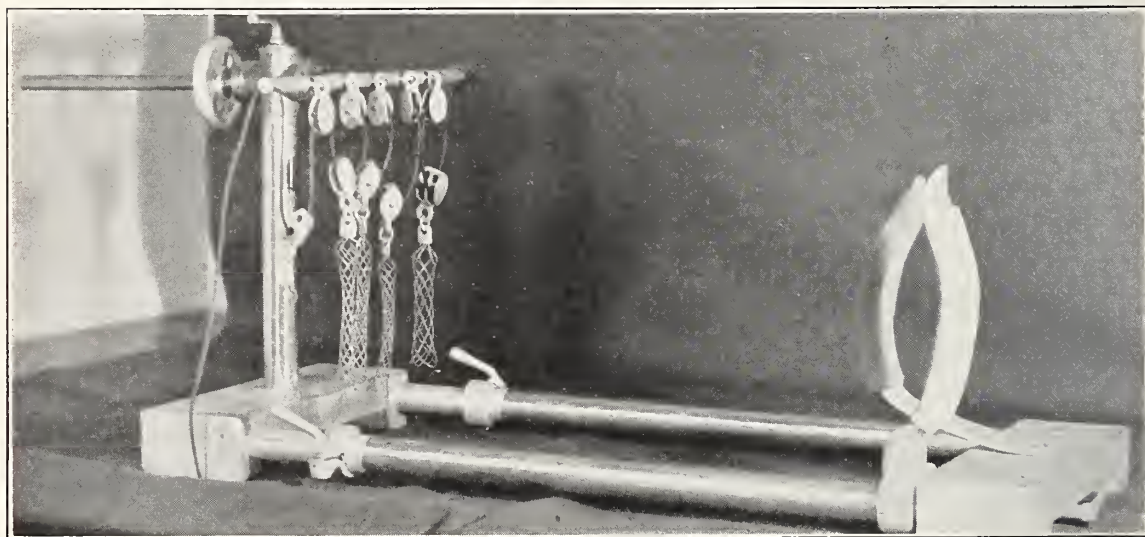


Figure 1. Traction apparatus.

side table or with the patient sitting beside the table on which the apparatus is placed.

TECHNIC

The employment of local anesthesia in the reduction of fractures is now a firmly established procedure.^{2,3} Lorenz Boehler after his long experience as head of the fracture service at the Vienna Accident Hospital states, "All pain can be eliminated by local or regional anesthesia. In recent fractures we always employ local anesthesia or in a few cases regional, but never general. As we have used it for more than 6,000 cases without the slightest drawback, without infection of the blood clot or toxic effects, this kind of anesthesia can be advised for routine work."⁴

It is this use of a local anesthetic agent (novocaine) injected directly into the hematoma that makes the use of the above described traction apparatus so convenient. An anesthetist can be dispensed with which is of such great importance to the physician who must work alone. The severe general disturbances which follow even the shortest general anesthesia are done away with. Additional but no less important advantages are that the deformity may be corrected several times if necessary since the anesthesia lasts from two to three hours and, most important of all, the muscular relaxation is much more pronounced than in cases where a short and rapid general anesthesia is used.

For the correct technic and proper use of local anesthesia in the reduction of fractures the reader is referred to the above works of Christopher or Boehler.

A step by step outline of the procedure fol-

² Boehler, L.: *The Treatment of Fractures*, 4th English Edition, Wm. Wood & Co., Baltimore, 1935.

³ Christopher, F.: *Minor Surgery*, 3rd Edition, W. B. Saunders & Co., Philadelphia, 1934.

⁴ Boehler, L.: *ibid.*, p. 59.

lowed in the use of the traction apparatus in reducing a Colles fracture, for example, follows:

(1) Under strictly aseptic technic local anesthesia is obtained by injection of 5 c. c. of 2% novocaine into the hematoma. Needle is introduced on the dorsum of the wrist proximal to the fracture.

(2) Wait ten minutes by the clock. Complete anesthesia is secured in this time.

(3) The frame of the apparatus is placed in approximation with the patient's elbow fixed at a right angle by the brace and counter traction thus applied.

(4) The wire finger-traps are applied to the thumb, index, and middle fingers only. If the fingers are small, the traps are reinforced by adhesive tape.

(5) Gradual traction is applied with the screw until the radial styloid can be palpated one finger-breadth distal to the ulna styloid. By this time the radial deviation will have been replaced by ulnar deviation and much of the dorsal displacement will have disappeared.

(6) Firm pressure is applied to the dorsum of the distal fragment with both thumbs, the other fingers of operator's hand making counter-pressure on the ventral surface of the forearm.

(7) The fracture site is checked by fluoroscope with particular attention being paid to—

- a. Normal length of radius.
- b. Correction of dorsal displacement.
- c. Correction of tilting so that joint surface of radius faces slightly ventral to surface of wrist.

The shape and form of the machine is such that, in the author's practice, the office x-ray and fluoroscope can be conveniently placed in position for checking reduction of the fragments before application of the plaster while the arm is still in the apparatus.

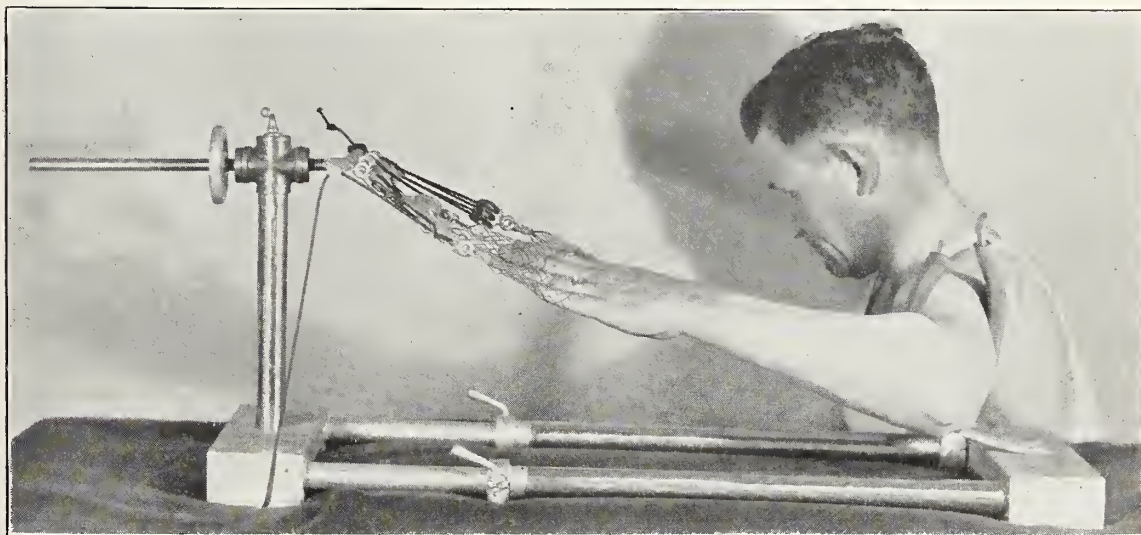


Figure 2. Traction machine in use.

(8) A dorsal four inch plaster splint is applied from knuckle to elbow and a ventral four inch splint from the proximal flexion crease of the hand to the elbow. The plaster is allowed to set and here again the usefulness of the apparatus is demonstrated as full traction and proper alignment of the fragments is maintained by the machine. Greater accuracy is thus permitted than would be possible with traction supplied by the operator or his assistant.

(9) When the plaster has set, the arm is wrapped with gauze bandage and the traction screw is released and forearm removed from the finger traps.

(10) Post reduction x-rays are taken immediately. The reduction is repeated under the same anesthetic if the arm is not properly reduced.

The usual after care is given with encouragement of early active motion. The procedure just outlined makes use of the non-padded plaster cast.⁵

In fracture of the shaft of one or both bones of the forearm, essentially the same procedure is followed as regards the use of the traction appliance except that the anesthetic is injected at one or both hematomas of the fracture site as the

case may be or, if necessary, a brachial plexus block is performed. Also in fractures of both bones of the forearm, all five fingers are attached to the wire finger traps and the cross bar holding these traps is rotated so that the arm is in full supination if the fracture is of the upper third of the forearm or mid-position if the fracture is distal to this point. The screw traction is slowly and firmly applied until all shortening is overcome. Strong pressure with the fingers and thumbs over the interosseous space on both dorsal and ventral surfaces is applied forcing the bones apart and manual manipulation of the four fragments will usually allow these fragments to lock. Again the arm is left in the machine for steady and uniform traction while the plaster is hardening. Fig. 2 shows the arm with traction apparatus correctly applied.

SUMMARY

A description and a few of the important uses of the traction apparatus have been given here in detail. Its range of usefulness can, of course, be extended to include many varied types of fracture met with in the wrist and forearm where powerful but well controlled traction is the chief factor in securing more perfect reduction and where accurate maintenance of the fragments after reduction and during the setting of the plaster is so essential to good results.

⁵ The foremost authority on the use of the non-padded cast today is Lorenz Boehler. Technic and results are fully described in his book already referred to.

ELECTROSURGICAL EXCISIONAL BIOPSY*

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Early recognition, accurate histologic diagnosis and prompt eradication are cardinal principles in the control of cancer. The general public has become "cancer conscious." The general physician is often consulted for advice as to the correct management of the "chronic ulcer, the scaly bleeding wart, the irritated blue black mole and the lump which has changed in size and shape."¹

The prophylactic removal of "precancerous" lesions has been well established. Routine biopsy upon such neoplasms often shows that they have already undergone malignant change. The profession, then, should have more than casual interest in a simple, safe and satisfactory method of management for readily accessible new growths suspected of being cancer.

Electrosurgical excisional biopsy is a technic which has been evolved in my own experience in the eradication of more than five thousand neoplasms during the past fifteen years. The pre-

liminary report was published eleven years ago.² The fundamental principles of both electrosurgery and surgical pathology are well known to the profession.³ Electrosurgery has become established as a valuable adjunct in general surgery, gynecology, genitourinary and neurological surgery.⁴ I have found it of great value in the management of deep seated cancer in the head and neck.⁵ Electrosurgery and radiation are often effective in the palliative treatment and occasional cure of otherwise inoperable cancer.⁶

Electrosurgical excisional biopsy is recommended

² Physical Agencies in Superficial Malignancy, E. N. Kime. *Indianapolis Med. Jour.* Vol. 323, May, 1927.

³ Electrosurgery. E. N. Kime. *Jour. Ind. State Med. Assn.* Vol. 21, p. 480. Nov., 1928. Electrosurgery as an Aid to the Removal of Intracranial Tumours. Harvey Cushing. *Surg. Gyn. Obst.* Vol. 47, p. 751, Dec., 1928.

⁴ Electrosurgery. E. N. Kime. *New England Jour. Med.* Vol. 200, p. 532. March, 1929.

⁵ Electrosurgery of Cancer of Nasal Accessory Sinuses. E. N. Kime. *Arch. Phys. Therapy, X-ray and Radium.* Vol. XIX, pp. 155-157. March, 1938.

⁶ Prognosis in Cancer. E. N. Kime. *Arch. Phys. Therapy, X-ray and Radium.* Vol. XVI, pp. 282-284. May, 1935.

* Presented before the Miami County Medical Society, June 24, 1938.

¹ "Ten Golden Rules of the Cancer Examination." *Bull. Am. Soc. for the Control of Cancer*—Vol. 19, No. 7, July, 1937.

to the profession because of its flexibility of application in the management of a wide variety of readily accessible new growths. The method is simple, safe, and satisfactory to both physician and patient. It is well adapted to use in the office and outpatient clinic, as well as in the hospital. Electrosurgical excisional biopsy is based upon the cardinal principles of modern oncologic science: (1) microscopic diagnosis in every neoplasm, and (2) complete ablation of the growth by excision through perijacent normal tissue and subjacent tumor bed. Careful study of the gross and microscopic structure of the growth is routinely done. Since the wound is permitted to heal by granulation in most cases, further biopsy, electrosurgery or irradiation may be done when indicated. In the great majority of early readily accessible neoplasms, however, electrosurgical excisional biopsy used as the first step in the management of the lesion does not require any further attention except routine dressings of the wound.

ADVANTAGES OF ELECTROSURGICAL EXCISIONAL BIOPSY

1. *Simplicity.*

The method is applicable in office and outpatient clinic. In most cases the growth is removed under local anesthesia without pain, hemorrhage or shock. There is almost no after discomfort and the patient suffers a minimum of inconvenience and expense. In those patients with extensive lesions, but with accessible neoplastic tissue, electrosurgical biopsy at the outset permits histologic diagnosis with more accurate appraisal of type, grade, and probable extent of the growth. This information is of great value in planning the management—with especial reference to preoperative and postoperative radiation.

2. *Safety.*

Electrosurgical excisional biopsy is a safe technic when properly performed. The hazards of cancer surgery, implantation of the growth and infection through the wound are overcome by the very nature of the technic employed. In the occasional case, in which the operator must cut through a malignant extension of the primary growth, cancer is not spread through open lymphatic spaces as would be expected after operation with the ordinary scalpel. It is only fair to state, however, that more than ordinary skill and judgment are required in electrosurgery. Heavy thermodestructive currents and high voltage "fulguration" may lead to unnecessary destruction of blood vessels, nerves, ducts or periosteum. High voltage fulguration, as employed in archaic diathermic devices, is not only ineffective in that it produces only surface destruction of the growth, but may also force living cancer more widely into the tumor bed. The electrocautery, and other forms of actual cautery may be effective in the destruction of accessible growths, but are not so effective and flexible as the technic of electrosurgical excisional biopsy. In electrosurgical ex-

cision the growth is excised through a safe line of cleavage by means of a fine dividing arc, under visual guidance of the operator. Delicate dissections along important anatomic structures, nerves, blood vessels, ducts and periosteum may be skillfully, accurately and safely performed by employing the modern electrosurgical unit.

3. *Satisfaction based upon five year end results.*

a. From the viewpoint of the patient, electrosurgical excisional biopsy, when employed for the eradication of early, low grade, localized readily accessible neoplasms, interferes but little with the daily life and activities of the patient. The minimum of discomfort, inconvenience, and expense—and the maximum of satisfaction based upon cure and cosmetic end results are the general rule after this method.

b. From the viewpoint of the physician. It is a source of great satisfaction to the attending physician to be able accurately to diagnose the neoplasm, and also to be able to determine precisely whether the growth has been completely removed. It is also of great importance to evaluate the grade of malignancy and radiosensitivity, thereby controlling the postoperative radiation when indicated. Electrosurgical excisional biopsy has proven effective in the extirpation of localized cancer which had become either "radium fast" or radio-resistant to x-ray. In three hundred odd cases of low grade cancer of the head and neck, five to ten-year cures have followed electrosurgical excisional biopsy in approximately ninety-eight percent.

A brief discussion of the lesions which have been found amenable to cure by electrosurgical excisional biopsy is apropos.

Benign Neoplasms

These new growths are very common. Comparatively few require treatment. Common sense clinical judgment should indicate those lesions which are a potential source of danger. Many of these benign neoplasms are adult cell in type and radio-resistant. Electrosurgical excisional biopsy is effective for all types of benign neoplasms. Pigmented nevi, pedunculated nevi, papillomata, keratoses, mucous cysts, polyps, and xanthelasma, among others, may be removed completely with resultant scarcely visible scar. It should be emphasized, moreover, that any neoplasm considered important enough to have any form of surgery should be removed completely. Sometimes, because of cosmetic considerations, the operator may be tempted to "take off" the growth, or to "burn it off" with cautery, caustics or fulgurating electric spark. These methods, as compared with the delicately flexible technic of electrosurgical excision, are less scientific, less effective, and more likely to leave unsightly scars. Of much greater danger to the patient is the likelihood of activating a nevus (even a non-pigmented mole) into highly malignant melanoma. This catastrophe has

been reported following "fulguration." The risk is much less, in fact negligible, with properly performed electrosurgical excisional biopsy.

Precancerous Lesions—Curable by Electrosurgical Excisional Biopsy

1. Irritated blue black moles. (Forerunners of melanocarcinoma.)

2. Papillomata, senile keratoses, and leukoplakia. Senile verruca on the face, lip, and dorsum of the hand. Cutaneous horns. Scaly fissured keratoses on exposed surfaces. Cicatrices following old burns. Keratotic and telangiectatic radiodermatoses and areas of radionecrosis following radium or x-ray burns. All these lesions are forerunners of squamous celled cancer, or epidermoid carcinoma and electrosurgical excisional biopsy is so effective that it may be used as the method of choice.

3. Oil Gland Tumors and Cysts. Seborrhic keratoses, sebaceous adenoma, and sebaceous cysts, (forerunners of adnexal type cancer or basal celled carcinoma). Routine biopsy of common wen (sebaceous cyst) shows incidence of cancer in approximately ten percent.

4. "Precancerous" epulis (giant celled sarcoma of the gum), Bowens' intra-epidermal epithelioma, and Paget's epidermoid tumour of the nipple are not *precancerous* growths. They are *malignant* neoplasms.

5. Cervical erosion, cervical polyp, urethral caruncle, cysts of the female external genitals, inclusion and dermoid cysts, sweat gland adenoma, glomus tumors, hemolymphangiomata and endothelioma are all amenable to cure by electrosurgical excisional biopsy.

Malignant New Growths—Amenable to Electrosurgical Excisional Biopsy

1. *Basal cell Carcinoma*. (Carcinoma basocellulare. Rodent Ulcer.)

This is the most common type of human cancer. If promptly attacked it may be readily cured by electrosurgical excisional biopsy. It may also be cured when in its early superficial stage by various destructive agents. X-ray and radium are effective, so effective in fact that the claim has been made that they are the agencies of choice. It so happens that routine biopsy will reveal squamous cell nests in about ten percent of all rodent ulcers. Squamous epithelioma is more resistant to radium and x-ray than basal celled carcinoma. We have not infrequently encountered deep seated cancer in the head and neck, which had resisted prior treatment by radium and x-ray—for a clinically typical basal-celled epithelioma. The histologic pattern in these grievous type cases is occasionally basal squamous epithelioma, or other mixed cell type of growth. It is for this reason that we advocate initial electrosurgical biopsy on all accessible neoplasms, whether the oncologist plans to use radiation as the main agency or not. As already stated, initially employed electro-

surgical excisional biopsy is curative in almost every case of basal celled cancer. The method is very effective for lesions about the face, nose, nasolacrimal duct and eyelids.

A rare form of basal cancer, the metastasizing basal celled carcinoma, is occasionally seen. We have two such cases in our collection. Metastasis had already occurred when the patient was first seen. Despite electrosurgical resection of the primary lesion, and vigorous postoperative x-ray treatment, both patients died from distant metastases.

2. *Squamous cell Carcinoma*. (Epithelioma spino-cellulare. Epidermoid cancer.) Variably malignant, and variably radiosensitive. More apt to metastasize than basal celled cancer. Low grade squamous celled cancer is found in the lip, buccal and lingual mucosa, about the face, scalp and auricle, in the skin of the trunk and extremities, on the external genitals and within the anal canal. Low grade epidermoid cancer is rather radioresistant. When attacked in its early localized stage it is amenable to cure by electrosurgical excisional biopsy. High grade epidermoid cancer may develop in the above locations and also in the floor of the mouth, back of the tongue and in the cervix uteri. High grade cancer especially in these locations is best treated by radiation. Electrosurgical biopsy may be conveniently employed as the preliminary step in diagnosis and as a means of preparation for radium application. Squamous celled cancer of the external genitals is a dangerous disease. Cancer of the vulva is highly radioresistant. Electrosurgical resection under general anesthesia together with dissection of the groin is the method of choice.

3. *Melanoma*. (Melano-carcinoma; melanotic sarcoma.) This highly fatal type of skin cancer may be prevented if the physician will "beware the blue black mole" and employ electrosurgical excisional biopsy upon the growth during its incipency. Pigmented growths are radioresistant. Nothing short of wide excision should be done in the removal of these dangerous new growths.

4. *Adenocarcinoma*. Mammary cancer is a major type lesion. Office management is best limited to physical examination, transillumination, radiography, preoperative and postoperative radiation. Our case records on electrosurgical excisional biopsy show very few patients with adenocarcinoma. They were distributed as follows: adenocarcinoma of the sweat glands, of the soft palate, and of the vulva.

Selection of cases for management by Electrosurgical Excisional Biopsy

The following points may be briefly emphasized:

1. Careful history. "Ten Golden Rules of Cancer Examination."¹¹

2. Clinical appraisal should indicate low grade lesion, accessible for electrosurgical resection under local anesthesia.

3. Facilities should be available for biopsy

and, depending upon the histologic findings, for subsequent hospitalization, further surgery or radiation, if and when indicated.

4. Evaluation of constitutional factors. Secondary infection and syphilis are important complications, especially the latter. Advanced age is seldom a contraindication per se. The senile victim of cancer cooperates well and the growth is usually slow growing and of low grade malignancy. He should not be denied the opportunity of cure through mistaken kindness or incorrect appraisal of his expectancy. Excellent results follow prompt electrosurgical extirpation of readily accessible cancer in the aged.

Technic of Management

(As employed in office and outpatient clinic)

Cooperative teamwork between operator, pathologist and radiologist is important. Electrosurgical excisional biopsy provides data of importance to each of the three. In those cases wherein the method is of itself insufficient to cure, the method may be adapted to the requirements of the particular problem at hand. Electrosurgery is not recommended as a substitute for either classic surgery or radiation. Electrosurgical excisional biopsy requires special equipment and attention to technic.

Preoperative sedation, preparation of the operative field and sterilization of instruments as for any aseptic operation. Gloves may be dispensed with in the minor lesions, since the operative instrument sterilizes as it cuts and fingers are never inserted into the wound. Ligatures and sutures are seldom required.

Anesthesia by nerve block or local anesthetic should be invariably employed, and should be better than for ordinary surgery. The incision is made by a very fine pointed bistoury activated with the "cutting current" from a modern spark-gap electrosurgical unit. The line of incision should be well beyond the grossly visible and palpable margin of the growth. The neoplasm is then resected *in toto* along with the underlying tumor bed. The electric arc will easily follow the proper line of cleavage, if the operator is careful to work well beyond the obviously neoplastic growth. Spurting vessels are controlled by hemostat, and sealed by the application of the "coagulating current" which is also available in the modern electrosurgical unit. The base of the wound is then lightly dessicated, to stop capillary oozing, close lymph spaces and cover the terminals of the

sensory nerves. The wound may be closed by sutures. In most cases this is neither necessary nor advisable. The wound is kept clean and watched for evidences of continued growth. Follow up biopsies are done if any suspicious nodule appears in the wound. Radium application may be employed when indicated. As a rule, ordinary dressings reinforced by the occasional radiation with a cold quartz mercury vapor uviarc result in complete and satisfactory wound healing. It is true that electrosurgical wounds may require a longer time for wound healing than after scalpel excision. In large benign tumors this factor is important. In the treatment of cancer, however, the advantages of electrosurgical excisional biopsy are such that the additional time factor is of relatively less importance.

Advantages of Electrosurgical Technic

1. General applicability and flexibility. Delicate dissections possible.
2. Hemostasis and asepsis. Infected cauliflower ulcerated growths may be resected with less danger of implantation in the wound.
3. The almost total absence of postoperative discomfort and shock.
4. The method of choice for recurrent cancer, "radium fast" and radioresistant cancer.
5. Wound healing is satisfactory if the growth has been completely removed. Failure to heal indicates follow up biopsy. Skin grafting and plastic repair are only occasionally required.

CONCLUSIONS

1. Electrosurgical excisional biopsy is recommended as a simple, safe and satisfactory technic for the resection of readily accessible neoplasms.
2. The method is based upon the cardinal principles of biopsy diagnosis and complete extirpation of the growth.
3. Determination of the type, grade and extent of the growth enables the oncologist to decide whether postoperative radiation is indicated.
4. Although the method is not infallible, in the comparatively few cases of apparently localized lesions which have extended beyond the margin of excision, further operation or radiation is usually effective.
5. Five year cures have followed the method in more than ninety-five percent of cases which were accepted for treatment in office and outpatient clinic during the past fifteen years.

711 Underwriters Building.

EYESTRAIN

Dr. M. Carl Wilensky of New Orleans (Headaches Caused by Eye Strain. *Southwestern Medicine*, Vol. xxii, No. 2, February 1938, p. 43) says that eye strain is variously estimated as responsible in from 50% to 90% of cases of headache. Some of the eye conditions that may be the cause of headache are astigmatism, presbyopia, hyperopia, anisometropia, anisokonia, myopia, anomalies of accommodation, muscle imbalance, and simple glaucoma. Faulty reading habits (poor posture and lighting) also cause headache through eye strain.

You are urged to read carefully and thoroughly the reports of the special session of the AMA House of Delegates on page 572.

A SUGGESTED PLAN FOR CONSIDERATION ON THE PROBLEM OF HEALTH SECURITY*

N. K. FORSTER, M.D.

Hammond

"Recognizing, therefore, that state systems of medical service are unsatisfactory, since they depreciate the quality of medical care, destroy initiative, inhibit research and take from medicine the personal factor which is fundamental to good medical care, it becomes incumbent on us to bring about such changes in the administration of the payment for medical service as will provide wider distribution and better care for most people. For a democratic people of the type of those living in the United States, the ideal system is obviously one in which the householder is encouraged to save toward medical costs, and in which physicians are encouraged to organize the administration of service on a most efficient plan, with the understanding that the costs will be met voluntarily by those who use the service."¹

The appeals of social service agencies, the surveys and propaganda movements of foundations and the prolific activities of political self glorifiers point the necessity for some change in methods in the distribution of adequate medical care and its prevailing cost. Out of the cocoon of such agitation has sprung the hybrid of socialized medicine, the mongrel of state medicine, the mixtures of group systems of practice and the impotence of compulsory sickness insurance, all with their attendant satellites of bureaucratic regulation, private family interference, increased taxations, deterioration in practice, inhibition of individual initiative and retardation of progress.

Perhaps because of the depression and the associated governmental activities for relief, including the passage of the Social Security Act, the agitation for some form of medical practice change has gained impetus and many advocates. As a consequence, the medical profession, and particularly its representatives at headquarters, have been put "on the spot." How well they have performed their work in staving off adverse legislation and in the exposure of innumerable fly-by-night schemes, is a matter of record which is not fully appreciated by the profession at large.

During this period they have been entirely on the defensive in their vigilant endeavors to show the impracticability of socialized medicine, state medicine and compulsory insurance schemes for

this country, and they have done a splendid job. Nor are their efforts lagging, for daily there springs up some new phase or scheme which constitutes a major problem for investigation and solution, and their alertness in combating these constantly threatening designs should be a source of satisfaction and pride for every practicing physician. Because of the enormous outlay of energy and work necessary to meet these demands, no suitable program has as yet been evolved which could be presented to the American public as fulfilling the essential requirements of providing adequately for the health needs of the individual at a lower cost, and at the same time not interfering with the personal relationship between physician and patient, the free choice of practitioner, and the quality and progress of medicine as a science.

In an effort to put into practice some measure to lighten the burden of the cost of illness, various communities and organizations have adopted plans for group hospitalization. These plans, or at least the general principles, have been endorsed by the American Hospital Association. The policy of the American Medical Association, in its consideration of this development, has been a middle-of-the-road one so long as the basic principles of practice as approved by the House of Delegates at Cleveland were not violated. They have recognized the value of experimentation along this line without giving final sanction to the principle in general. Nevertheless, this policy has not been one of compromise or complacency. The Bureau of Medical Economics has investigated some 144 of these plans, and on re-surveying their progress find only 23 in operation on February 23, 1936, with an estimated enrollment of 200,000 persons out of 120,000,000 in the United States. That the present plans are not meeting with universal acceptance among the members of the profession can be understood when, among other objectionable features, consideration is given to the impositions and changes which various organizations and lay groups are endeavoring to saddle onto operating group hospitalization plans. These have to do with provision of diagnostic medical service, along with and as a part of hospital services. However, this does not mean that group hospitalization plans are to be condemned in their entirety. There is much to be said in their favor, and some of them are meeting with undoubted success. Moreover, the agitation for this form of "social progress" is growing rapidly and, whether the medical profession chooses to like it or not, it is very evident that it will continue to grow, and as it attains more advocates and power it will inevitably result in encroachment upon various

This article contains the expressions and opinions of the author only, and they have not been subscribed to or vouched for by any committee of the Indiana State Medical Association.

Editor's Note: This paper was submitted in March, 1936, and, because of economic and social conditions at that time, publication was withheld.

¹ Fishbein: Health Security for the American People. *Amer. Med. Association Bulletin*, Vol. 31, No. 2, p. 40. Feb., 1936.

fields of practice to the detriment of the individual practitioner.

In any endeavor to promote a consideration of all possible angles of the question of health security, and the problem of securing a workable plan for presentation to and acceptance by the public, recognition must be given to the magnitude of any such enterprise. Consequently, any suggestion made to encompass such an immense program will, and should be, looked upon with a great deal of misgiving and doubt. However, if it presents any features of value, or phases of merit, its consideration should be approached, not in the spirit of condemnation but of cautious investigation and careful adjudgment. No original plan of such scope could possibly meet all objections in its primary form, but if it supplies the background upon which suitable amendments or improvements might be made, it is worthy of deliberation. It is with this understanding, and no little apprehension, that the following plan for consideration is advanced in the sincere hope that some features of it, at least, might be applicable to the solution of this enigma.

The most forceful criticism presented to date against the medical profession, in its consideration of this problem, is that they have offered nothing toward its solution. We are told that we have exposed the weaknesses and impracticability of suggested plans but have done nothing constructive in the way of trying to better conditions. Our attitude has been entirely negative. This is the thought behind the Senate bill of J. Hamilton Lewis, and surely destructive criticism of this measure is warranted. However, be it the fault of the medical profession or the magnitude of the problem, the answer still remains to be found. Originality is not the thought in the presentation of this suggestion for consideration, but only the hope that it may bring about some worthwhile plan to meet the exigencies of the question, and silence the unjust criticism against the medical profession. After all, is it not a community problem as well as a medical one?

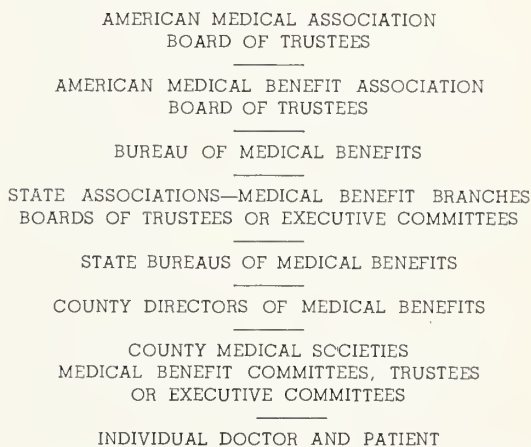
THE AMERICAN MEDICAL BENEFIT ASSOCIATION

It is proposed that the American Medical Association form a subsidiary organization to be known as the American Medical Benefit Association. The name proposed is chosen advisedly since the operations of this organization may be subjected to the various state regulations governing insurance operators, and for this reason should be in a position to function in the different states with a minimum of interference and direction in bonding regulations, as well as the least dictation in the matter of securities and investment holdings should such a problem arise. This organization further should be conducted on a non-profit basis for similar reasons, and, in addition, because that should be its true purpose. Inasmuch as its operations may be subjected to controversy and even perhaps legal disputes, it should be

founded as a separate and distinct structure from the American Medical Association, so that it may not jeopardize any of the assets of that body, and yet may be kept under the complete control of that body.

ORGANIZATION

The American Medical Benefit Association shall be operated under direct control of the Board of Trustees of the American Medical Association, or by a similar board of trustees elected by the medical profession through their delegates for this purpose. These trustees shall be responsible for the formation of a central bureau, to be composed of experienced insurance men, who will direct the operation of the plan throughout the country. Since the problems of medical costs and care differ throughout the States, and even in various communities, it shall be the duty of each State Association to form a similar bureau, under the direction of its Board of Trustees or Executive Committee, cooperating with the central bureau in the administration of the plan. Each State Bureau will have under its supervision an experienced director for every county in the State, whose duty shall be the local administration and direction of the functioning of the plan with the cooperation of the local county society. In such regions where the population is small, several counties may advantageously be combined under one director. Diagrammatically the organization would shape itself somewhat as follows:



The essential feature of this project shall be to keep its management at all times under the direction of the members of the American Medical Association.

PURPOSE OF THE ORGANIZATION

The aim of this undertaking shall be to furnish at low cost to the American public a policy or contract entitling the holder to secure medical services for illnesses, or accidental injuries, other than those arising out of and in the course of employment, from any physician member of his choice. It shall also be the purpose of this plan to compensate the physician for such services

rendered without further cost to the holders of the policies.

FACTORS FOR CONSIDERATION IN THE OPERATIVE POLICY

It is, of course, evident that no policy or contract could be offered without certain definite regulations and specifications. In the first place, the cost of such a policy must be based on factors which will allow, through a determination of certain averages, for the necessary administration costs of the plan, as well as setting up a contingent fund for a purpose which will be suggested later. In the second place, some limitation must, of necessity, be placed on the class of individuals who may purchase the policy or contract, with particular reference to their income. It would be obviously unfair to allow a person in the upper income brackets to purchase medical care at the same low rate as the individual in the middle or lower divisions for whose benefit the plan is chiefly provided. Provision, therefore, could be made as to rates at which the policy would be sold to those of the various income classes. The determination of the income class into which an individual might fall is not a matter of such great difficulty. Furthermore, a limitation must necessarily be placed upon the length and amount of services to be rendered. Policy provisions, therefore, would include a time limit, a definite schedule of fees, a determination of the types of illnesses to be included, number of consultants permitted, arrangements for change of physician, chronic invalidism and other features which only careful consideration and investigation might bring into light.

Primarily the plan would be presented to those of a certain income class, since it is essentially for the individual who does not care to accept relief or charity and still is unable to budget properly his income to meet the exigencies of illness, particularly those catastrophic illnesses requiring surgical or obstetrical care or prolonged disabilities. However, there is no logical reason why a similar policy, with, of course, a graded premium rate to allow for higher schedules and perhaps a more elaborate extension of service, could not be offered to those individuals in the higher brackets of earning power. In other words, a minimum basis of service could be established at a fixed rate, and any elaboration of service could be offered at higher rates.

Moreover, it seems feasible that a similar contract could be offered to communities through township trustees or other governmental agencies responsible for the care of the indigent. Such a contract or policy would be presented with a considerably lowered premium rate and a schedule of fees, and the premium rate could be established in a manner similar to the prevailing custom of insurance carriers in estimating rates for compensation insurance on a pay roll basis. In this instance the rate could be established on a relief roll basis to be paid by the county authori-

ties, and would give the indigent his choice of physician, as well as securing payment for the physician. Most plans advocated to date have had as the beneficiary those regularly employed, and the indigent problem has continued in its highly unsatisfactory status quo. Such an arrangement should do much to alleviate the heavy burden of medical care which the medical profession has rendered in so many instances without remuneration, and should place the load where it belongs as a community problem.

At the present time, and under the present arrangements, it is difficult to conceive just how far group hospitalization plans are likely to go. Just how much service will they give for how much money? How long will it be before additional diagnostic services will be included as part of the plans? How soon will it be before hospital groups or single units will employ full time surgeons, internists and specialists and offer a complete medical program of services? That is certainly not an undreamed-of situation and has already found expression in some modification. Just what the medical profession can do about such a situation has not as yet been told. That it must do something soon is daily more apparent if individual practice is to survive.

Under the plan for consideration, a separate or combined policy for hospitalization care could also be offered which would return the question of medical care to the control of the medical profession where it, of course, belongs, and should go a long way toward obviating the dangers and impositions of lay organization control. The matter of dictation of policy to hospital operators interested in group hospitalization opens up some delicate territory, and under present conditions the only way in which the control of the extent to which these plans may go lies in mutual cooperation between the physicians and the hospital. However, the large number of institutions already operating in competitive practice at much lower rates than the individual physician can afford to charge, is abundant evidence that some method must be advanced which will keep the control of the policy of the care of the sick in the hands of the organized profession.

FUNDS FOR ORGANIZATION AND OPERATION

The institution of such a project as outlined naturally calls for a considerable amount of capital with which to start operations. In order to secure this it is proposed that every member of the American Medical Association who desires to share in the benefits to be derived from the plan contribute, as an initial entrance fee, the sum of twenty-five dollars (\$25.00). This is, of course, an arbitrary figure and could be decreased or increased according to the estimates required after proper investigation. Considering that there are over 100,000 members of the association, an optimistic viewpoint that all would seek membership would result in a capital of \$2,500,000 for organi-

zation and early promotion of the plan. Subsequent yearly dues from physician members could be determined on a flat rate basis, which has more objectionable features since all of the members will not share alike in the benefits because of inequalities in practice, population and the number of lay subscribers in various communities. A more equitable plan, therefore, would be a yearly assessment based on a percentage of the number of cases handled and paid for. There should be no objection to a percentage assessment for the cost of operation of the plan.

In addition, there is, of course, the income to be derived from the premiums paid by policyholders. It is to be assumed that this will provide funds for the operation and administration costs of the plan. If it can be shown that such costs will far outweigh the income to be derived then, of course, the plan cannot be instituted. However, this is a matter for investigation, and figures are available which will provide an estimate of the number likely to become ill in a given time, as well as the average cost of these illnesses. The only unknown factor is the attitude of the public in accepting and purchasing this low cost plan of sickness insurance. However, that factor is never definitely known in the organization of any business, and can only be ascertained through trial.

Should the operation of the plan result in a surplus of funds, perhaps a too optimistic viewpoint, then this contingent fund might be disbursed in several ways in order that the organization may maintain its non-profit status. A portion might be returned in the form of provisions to policyholders of an extension of services or a reduction on premium rates. The principal portion, however, should be placed either in a trust fund, or in an annuity contract of some sort providing for a monthly payment of a fixed sum to all physician members who have attained the age of seventy and have ceased practice, and to those who have become permanently disabled and have no source of income. This would constitute an acceptable form of benefit to all physician members, and one which philanthropists have overlooked in their zeal to care for the down-trodden Armenians and the poor heathen Chinese.

PAYMENT FOR MEDICAL SERVICES

Since the funds for payment of medical charges are to be made available from premium payments, it necessarily follows that these charges must be subjected to some plan of fixed rates. A schedule of fees would have to be drawn up, and in addition a board of arbitration, investigation and adjusting formed to settle such matters as might come up for dispute. This board would be associated with each State Bureau, and either party to the dispute might have the right of appeal to a central board, under the jurisdiction of the Board of Trustees of the association, whose decision should be final and permit of no appeal

to outside courts of law. Objectionable as a schedule of fees may seem, it is essential to the success of any such insurance arrangement. Payment for services rendered would come from the State Bureau, upon certification of the county director, directly to the physician who would be obliged to submit a complete report of the case according to a predetermined form.

ALTERNATE PLANS

Any plan submitted for consideration or trial must, of course, emphasize the element of public welfare, and not the question of financial returns. Since the public welfare, in the matter of sickness, embraces not only the physician but the likelihood of hospitalization as well, the services of these two factors should be under the control of the medical profession. There should be no middle man or group control of a political or self-seeking nature. These services should offer a free choice of physician and, in so far as practicable, of hospital. These services would be rendered free from the element of profit in so far as the management of the plan itself is concerned. The plan further must be economically sound. The presentation of any such plan to the public should be through explanation of its advantages, rather than through salesmanship, and the privilege of voluntarily joining should be maintained. If upon investigation it is determined that the plan above outlined cannot meet these requirements then two alternate plans are suggested briefly for consideration.

1. Arrangement with an old line, well established insurance company to take up the problems of providing a policy similar to the group insurance policies now being sold, and providing for payment of medical fees. This should be on a low cost plan to provide income sufficient only for administrative and operating expenses. Since no company would be interested without some profit basis being made available, this element might be provided by deducting from fees to be paid to physicians a certain percentage to be considered as membership costs; or by a flat rate collected from physicians yearly as a service charge in the prompt settlement of accounts. The operation of such a plan should be under close cooperation with the American Medical Association, and some method of direction of this project should be incorporated in the plan.

2. The issuance of medical "scrip" in various blocks or denominations of from two dollars to five hundred dollars, sold at a substantial discount to employees through their employers, or in the case of indigents to the various relief organizations and township trustees at a greater discount. In the case of employees an arrangement might be made whereby they could contract for the purchase of say two hundred dollars worth of medical services, paying one hundred and fifty dollars in weekly or monthly amounts. The scrip so obtained could be used in the payment of medi-

cal bills, and would be redeemable by a bureau of the American Medical Association appointed for this purpose. In the event the scrip was never utilized, provision for transfer or redemption could be made. In the operation of this plan a schedule of fees would, of course, be essential, and definite regulations should be adopted for its proper functioning, in order to obviate any misunderstandings or misuse.

CONCLUSIONS

The necessity for some definite plan to provide for adequate medical care at lowered costs is recognized. Such a plan must emanate from the medical profession or it is evident that present day agitation will ultimately result in the passage of measures detrimental to the profession. Such a plan is outlined for consideration with two alternate suggestions. It is recognized that there is nothing fundamentally new in the suggestions made; however, their presentation by the medical profession to the public, and the control of operations by the profession does offer some new phases of application. There are innumerable advantages to be anticipated from the adoption of such measures. More widespread medical care at a lower cost for the public, with retention of their inalienable right to choose their own physician. A stop gag for the advances being made by the

proponents of state medicine, socialized medicine and group systems of practice. A more equitable basis for competition between physicians and large institutions, and corporations engaged in medical practice under various guises. Payment to the physician for services rendered compensates for any restrictions made necessary in the proper operation of the plan. Can the plan be operated on a sound economic basis? That is for the American Medical Association to decide. Whether this suggestion is operative or not is beside the main issue which clearly points the necessity for the profession to come forward with some plan which is operative. The heretofore negative defensive attitude is only acquiring more and more criticism, not only from the public at large, but from members in our own ranks. In spite of all that medical science has done for the welfare of humanity, it is time for us to realize that we are no longer held in the public awe or esteem which once prevailed. The timely suggestion of Harbridge in the February, 1936, *Bulletin of the American Medical Association* provides much food for thought and fodder for action. Let us have an organized medical profession, whose organization means something to every member, endowed with the power and influence to attack and solve this and all problems affecting our welfare.

137 Rimbach Ave.

FOREIGN BODY IN THE VAGINA. CASE REPORT

ERMIL T. LESLIE, M. D.

Evansville

Mrs. M. K., aged 70, a widow for two weeks, was referred by the Little Sisters of the Poor for the removal of a foreign body from the vagina.

Chief Complaint: Patient had no complaint. Complaints came from those about her of an odor so foul that they could not sleep in the same room with her. Patient states that while herding sheep in her early twenties, a tramp attempted to rape her but, failing to do so, for some unknown reason he placed a foreign object in her vagina. On repeated questioning, the patient finally confessed that she had not cared for the opposite sex and a few years after menarche had started the practice of masturbation and eventually resorted to the use of an ink bottle for this purpose. Some years later this bottle was lost in the vagina and could not be removed by the patient and she obtained another bottle to continue her practice. When the patient was thirty-five years old, a widower with four children offered her a home which she accepted, not because she desired a companion but because she was an orphan in need of a home.

She kept the story of her accident a secret from her husband although he insisted during the thirty-five years of their married life that he thought there was something wrong with her. The patient states that during her married life she continued

to use the second bottle for masturbation purposes. Two weeks before admission the patient had such a foul smelling discharge that an effort was made to remove the bottle.

Past History: Has had good health aside from the discharge. No operations. No accidents. No flooding or pregnancies. Menarche started at the age of twelve or thirteen. Periods were regular.

Physical examination: Normal except for the vaginal examination. A foreign body about 1½ inches in diameter, about 4 inches in height was found, and a very foul discharge was present.

Operation: An attempt was made on the ward to remove the foreign body, but it was unsuccessful, even though one finger was inserted in the rectum and the other hand placed on top of the foreign body and over the lower abdominal region. The patient was taken to surgery, anesthetized, and an episiotomy was done. Use of the high forcep also was unsuccessful. The bottom of the bottle was broken with a hammer and chisel and the lower part removed piece by piece. It was then possible to deliver the remainder of the bottle. The wound was closed with chromic No. 2 and dermal. The patient's condition on leaving the surgery was fair. The post-operative period was uneventful.

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OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL
PROFESSION OF INDIANA

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OCTOBER, 1938

Editorials

ACTION!

Those who have through these long months raised a hue and cry for positive action by the American Medical Association should be satisfied with the outcome of the special called meeting of the House of Delegates of that body which was held in Chicago, September 16 and 17. The official report of the meeting has been carried in the *Journal of the A. M. A.*, and a comprehensive report, prepared by Dr. George Dillinger who attended as a delegate from Indiana, is contained in this issue of THE JOURNAL. The official findings and recommendations of the A.M.A. House of Delegates also are printed in this issue.

Although the program may seem ultra-liberal to many physicians and many may criticize it as being too much in accord with the recommendations of the National Health Conference, the plans contemplated, particularly in regard to group hospitalization, preventive medicine, and voluntary indemnity sickness insurance, as opposed to federal compulsory health insurance, should not come as a complete shock to the profession in Indiana. Indeed, the Indiana profession is well prepared to consider the program and, through the local county medical societies, to put into immediate operation those parts of the program for which the need exists in each locality.

As an organization, the Indiana State Medical Association, through its officers, has for some time seen the handwriting on the wall, with the result that Indiana has developed the "Indiana Plan" which bears the official stamp of approval of the American Medical Association and has been officially approved by the Indiana Department of the American Legion; and as we go to press, the plan is up for consideration for approval and adoption

by the American Legion at its national convention in session at Los Angeles.

For the past two months, a committee of forty-eight physicians of the Indiana State Medical Association, composed of councilors, executive committee members, past presidents, delegates to the A.M.A., and representatives of the legislative and publicity committees have been studying the national situation in regard to medical practice and medical service in all of its varied and sundry detailed ramifications. The final statement of this committee will be presented along with the recommendations of the House of Delegates of the American Medical Association to the House of Delegates of the Indiana State Medical Association at its meeting this month.

The House of Delegates of the American Medical Association may act, and the House of Delegates of the Indiana State Medical Association may act, but in the final analysis, all of their resolutions and all of their elaborate programs to render service to patients will depend for their success upon each individual physician and a thoughtful, sane, up-to-date, workable program, formulated and carried out by each local county medical society. Action by these official bodies will be useless if it is not sustained by action on the part of the individual physicians.

CONSERVATION OF VISION

Less than three decades past, the subject of conservation of vision did not receive a great deal of attention. It was, of course, regretted that a large portion of our population should, through injury, inheritance, and disease, be deprived of that greatest of all the human senses, normal vision, but it seemed to be taken as a matter of course that this should be so.

In industry, as one writer expressed it more than twenty-five years ago, it seemed to be expected that a certain number of employees would receive ocular injuries that would end in some visual loss. Too, in our state blind asylums, about the same number of admissions of children who had lost all or a great percent of vision through gonorrheal infection was to be expected each year.

We sat in the meeting at Fort Wayne, several years ago, when the late George F. Keiper, after several years of studying cases of this sort, introduced a resolution demanding the enactment of a law making it compulsory to use the Credé treatment in the eyes of all newborn children.

THE JOURNAL for April, 1914, published what is said to have been the first article written on the prevention of ocular injuries in industry and, in the years following, several of our national medical societies made this subject the topic for many discussions. Since that time all industrial plants, large and small, have recognized the importance of accident prevention, particularly in relation to eye injuries.

Cases of ophthalmia neonatorum, once as common in Indiana as elsewhere, are now rare. Several years ago we saw eight such cases within a period of three months; now we rarely see a case. Yet there are such cases in Indiana, as will be noted in the article by Dr. Robert Masters, "Causes of Blindness Among the Children at the Indiana State School for the Blind," in this JOURNAL. Twenty-eight inmates of this school, about fifteen percent of the total registration, are there because of this preventable condition! Prenatal syphilis accounts for twenty-three children being in this state school, a condition that also could have been rectified had the proper attention been given to the mother during gestation. Thus we do find an added argument in favor of the present nationwide campaign against syphilis and gonorrhea.

High refractive errors occasionally are found to be the cause of near-blindness, in a few instances total loss of vision resulting.

Sympathetic ophthalmia is responsible for the presence of three children in the state school—three cases, as is pointed out in the report, that would not have been there had the offending eye been removed in time. Heredity also plays an important role in the production of blindness, and it is here that our eugenists and birth-control advocates should find a fertile field for their work.

Among the injury cases resulting in partial or total loss of vision, the great majority come from the industrial field, though by no means are all such cases from this source. The home and the farm account for many, and traffic accidents add to the score. However, it is true that since the rather liberal use of shatter-proof glass in our automobiles, these cases have materially been reduced.

Most of our industrial plants employ safety engineers and practically all of these concentrate on the prevention of eye injuries. The protective goggle has come to be an important part of the tool equipment of workers in our steel mills and foundries and, while some years ago the workmen raised considerable objection to the use of these appliances, they now recognize them as being very important.

Many ocular diseases bring about some degree of visual impairment, and even total blindness. Many of these are preventable while others, if properly managed, do not cause serious damage. Just now the question of glaucoma seems to be receiving unusual attention since its early recognition is an important factor in treatment. Any failure of vision in adults should be carefully investigated, since this often is a most important diagnostic point. Eye physicians often see such cases too late to bring about an effective result in cases which have had incompetent examinations or refractions. Occasionally such cases are referred by optometrists; too often they are not.

This leads to the discussion of the fitting of glasses, a procedure which is done in every town

and hamlet in the country, whether it be by the optometrist, the jeweler, the druggist, yes, even the town barber. Eye physicians are not immune to criticism on this point, since some of this gentry do not take this matter seriously and do work of this sort that is far below standard. Particularly in the matter of children is refraction important, for in many cases a competent eye examination will keep a child from a sight-saving class and restore to him normal vision. Only recently did we come across a case that for some years had been in the hands of a very competent medical refractionist. Having moved from their former home, the parents later took the child to an eye physician. It is evident that this man did not check the glasses the youngster was wearing, for he prescribed a rather heavy mixed myopic correction, *without a mydriatic*, when the case called for a hyperopic correction. Many such cases might be cited; they are common in the experiences of the eye physician who does many refractions. We unhesitatingly recommend that all children should be refracted under a mydriatic, preferably atropine; otherwise, they have not been afforded the care and attention demanded.

Conservation of vision is a large subject and a very important one. We are pleased to devote a number of THE JOURNAL to this subject, believing that the information therein contained will be of incalculable benefit to our readers.

INDIANA WATERS

THE JOURNAL frequently has commented on the subject of stream pollution, some time ago mentioning that suits had been brought against a northern Indiana city because of the stench arising from the dumping of untreated sewage in a stream alongside the property of those instituting the legal proceedings. Now comes the information that down in Shelby county some twenty-six suits have been filed against a strawboard manufacturing corporation, asking damages in the sum of \$25,000, alleging that live stock cannot drink the polluted water, that fish have been killed and that unhealthful conditions have been brought about by the dumping of wastes from this plant into a nearby stream.

The Indianapolis *News* points out that these suits would not have been necessary if an order issued in 1935 by the Indiana State Board of Health had been enforced. This law led us to believe that the lakes and streams of Indiana would be restored to the people of this commonwealth, to whom these waters, unpolluted, belong. However, such has not been the case. We wish it to be understood that we are in no wise directing criticism at the State Board of Health for we believe Indiana is fortunate in having an institution so ably manned. It is one thing for a legislative group to enact a law; the enforcement of this law becomes another thing. It is not a matter of a few months or a year, this thing

of stopping pollution of state-controlled waters. First, a survey must be made, and an engineering program laid out. This requires much time; numerous conferences must be held in connection with such a program and, finally, orders must be issued. It is but common sense to expect that a reasonable time should be granted for the carrying out of such orders. However, if there is a disposition on the part of the offenders to evade the orders of the Board, it becomes a different story: prosecutions should follow and at once. For many years we have complacently stood by and watched the gradual encroach of industry upon our natural waters; too long have we sat idly by, daily seeing raw sewage emptied into our streams and lakes. And all this without complaint! Then along comes the State Board of Health, aided and abetted by the Indiana State Medical Association, providing a program of health measures, most of which should have been enacted several decades ago. Our state press gave almost universal approval of the program and it was put under way. As we have said, it requires several years to bring about results; as a matter of fact, even though all forms of pollution were diverted from our waters, right today, it would be a matter of years before some of our most bespoiled lakes and streams would be restored to their pristine glory.

The Department of Conservation is lending a most able hand to the present program, this at no expense to the state, since their funds are derived from the small fees properly exacted from those who most enjoy the natural beauties of our state. We have no quarrel with the Commission because we have to pay \$1.50 for a hunting and fishing license, nor because of the ten cent fee exacted for admission into any one of our beautiful state parks, and we have paid admission into every one of them.

Again reverting to the clean-up program of the State Board of Health, we refer to the Lake Michigan problem. As we often have stated, the southern end of this large lake has for years had poured into it the raw sewage from northwestern Indiana cities, together with that from a very large population across the Illinois border. The Chicago river flowage was reversed, several years ago, in order that the sewage from that city might be diverted elsewhere, but certain Illinois communities continue to be offenders in some degree.

Some time ago the Indiana State Board of Health issued the order that after January 1, 1939, all the affected Indiana cities must have made provision for the proper disposal of sewage, and since that edict most of the communities affected have made tentative plans for the installation of proper sewage treatment and disposal plants. It cannot be expected that they will be in operation at the expiration of the time limit set by the Board, but the fact that plans are being

drawn is indicative that the cities in question mean ultimately to abide by the order.

All such great movements are slow in getting started but it is apparent that the Indiana State Board of Health means to carry out its original plans, even though considerable time will pass ere we see the complete fruition.

HOOSIER STATE POLITICS

For many years the State of Indiana has been regarded as a pivot state in national politics. Leaders throughout the nation have cast their weather eyes toward the Middle West, hoping to see more or less hopeful signs of the political times. We have observed the political trend in Indiana since 1896 when we cast our first vote, and in recent years we have carefully studied local political conditions, with observations based upon a cross section of the state as reflected by county seat newspapers.

Present day politics is of a different brand than that of thirty or forty years ago. Voters no longer shout from the housetops in proclaiming their choice of candidates. As many political workers have expressed it, "We have no way of knowing how Bill Jones and Mrs. Bill Jones are going to vote this fall; we can't seem to get any expression from either of them." Time was, back in the Wild Cat days, when rallies were held in Delphi with the Democrats erecting their huge hickory pole, and the occasion warranted the presence of every son of Thomas Jefferson together with his entire family. The youngsters, wearing caps bearing the legend "Cleveland and Hendricks," clambered onto decorated wagons. A week later the G.O.P. adherents, not to be outdone, raised an ash pole at a vantage point in the public square. The decorated wagons carrying loads of young political hopefuls were again in evidence, but the caps were blue affairs with large square visors bearing the names of Blaine and Logan (they got licked that year—remember?).

Great days, those days, but what a change has come in the intervening years! Back in the old days, a platform meant just that—it was either free trade or a protective tariff—take your choice. And the voters then knew what each platform meant. We can recall the mighty discussions that took place in the general store at Brighthurst. Farmers talked familiarly of ad valorem duty and such truck, just as a few years later they could repeat "Coin" Harvey's book on "sixteen to one" and never miss a page.

The county convention, an institution in which we still heartily believe, solved the problem of making up the ticket to the satisfaction of almost everybody without the expenditure of large sums of money as seems necessary today. Delegates to the state conventions were selected in a hand-picked manner and each man was selected because of his standing in his home community, and the voters were satisfied to have him act for them.

Then along came the primary, the voting machine and, finally, the registration law. At first we were inclined to believe that the primary was a good thing; now we are quite willing to go back to the convention system and all of its evils.

The registration law is grossly misunderstood and lends itself to politics in a large way. By that we mean that one party can appropriate enough money to see to it that all their votes are registered. A recent report is to the effect that in Marion county some 50,000 voters are disqualified because of this law, because they have failed to register or have changed their address from one precinct to another. Again, the average voter does not know that, even though registered, unless he voted in the election of 1934 and 1936 and has failed to re-register, he is disqualified; this alone accounts for an amazing number of disqualified voters throughout the state.

There is little respect for the person who fails to vote in every election in his community; it is his inalienable right, guaranteed to every American citizen, and he should consider it his duty to use it. Failure to vote negates the right to criticize what goes on in his community or country. Today the political machine dominates the field; its managers name the ticket, collect the assessments, and spend the proceeds. The whole scheme is an unsound affair, as may be determined by reading the reports of judicial investigations and the results of recounts. In an Indiana city, if press reports are true, primary vote count irregularities were the rule rather than the exception to such a degree that judicial investigation promises to reveal deplorable conditions. Ballot results were twisted about to suit the purposes of the ward heelers according to recount figures. Many other Indiana communities report similar situations—so many that one wonders just how “sacred” the Indiana ballot has become! “Preserve the sanctity of the ballot” long has been a Hoosier maxim, but we are beginning to doubt its sanctity. The 1939 session of the General Assembly would do well to heed the ominous signs that are blazoned before us and do something about it—something very definite.

Don't forget to tell your patients that you will be in Indianapolis, October 4, 5, and 6 to attend the annual meeting of the Indiana State Medical Association. And have you made your hotel reservation?

Editorial Notes

Do you know that there are no sight-saving schools and classes outside of Indianapolis? There is a definite need for schools for the “partial-sighted” through which some who now are being educated as totally blind persons could be given opportunities for useful, satisfactory lives.

A manuscript entitled “A Study of Acute Hemorrhagic Necrosis of the Pancreas” has been received for publication. No letter accompanied the paper, and no name appears upon any of the pages and it remains unidentified at this time. Will the sender please communicate with the editor?

Attention of gastro-enterologists is directed to a remedy for “dyspepsia,” as published in the New Harmony Gazette, August 23, 1826, one hundred and twelve years ago: “A gentleman troubled with dyspepsia ate a slice of boiled bacon between slices of bread, morning and evening, and soon found his symptoms of dyspepsia disappear.”

Indianapolis hotels report an unusually large advance registration for the coming convention, three days hence, but late arrivals will be taken care of by the local housing committee. However, it is good policy to make reservations well in advance of a meeting, so that you may be certain of the accommodations you wish.

Plans are being made for the continuation of the “Topic-of-the-Month” in THE JOURNAL for 1939. We have had but one unfavorable comment on this feature, while numerous members have expressed their appreciation. From outside the state we have had several letters complimenting us for the innovation; hence, it was decided to carry on for at least another year.

The Murat Temple, where all activities in connection with the annual session will be held, is but a short walk from the down-town section of Indianapolis. For those who do not care to walk, the taxi rate of fifteen cents will be found most reasonable, this being the rate for one or more persons. Murat Temple was built for the express purpose of handling large crowds and is admirably adapted to a convention such as ours.

Diphtheria immunization is compulsory in France, one of the first countries (if not the first)

to require the preventive measure on a nation-wide scale. All children must be immunized during infancy, or in the second or third year of life. The law was considered and adopted by the Senate and the Chamber of Deputies on June 25, 1938. Parents or guardians are personally responsible for the carrying out of the measure.

Members appointed on reference committees at the first session of the House of Delegates are reminded of the importance of these assignments and should be present if at all possible. If an occasion arises to prevent your presence, the president should be notified so that alterations in committees may be arranged. These reference committees are great time savers. Matters digested by the committees and reports thereon at the concluding session of the House are greatly expedited.

Soy beans, a comparatively new crop in Indiana, are reputed to be of much value as a source of protein. From thirty to fifty per cent of this valuable addition to the diet is found in soy beans, the amount depending somewhat on the variety of the bean and the locality in which it is raised. This particular protein is found to be highly digestible and is even recommended in infant feeding. A. A. Horvath, in the *American Journal of Digestive Diseases and Nutrition* for May, 1938 (page 177) discusses the subject and offers much information on the soy bean as a food product.

It is not our affair, but we would suggest that in all sessions of the House speakers be limited to a definite time. This should also apply to committee reports. All committee reports were printed in the September number of *THE JOURNAL* and should a chairman wish to amplify that report he should be allowed a minimum of time. Most delegates, while willing to take time out for the necessary business of the Association, strenuously object to any and all time-wasting procedures.

THE JOURNAL repeatedly has commented on the tonsillectomy problem, offering the opinion that in too many instances these glands are surgically attacked without provocation, as it were. Summer seems to be an open season for this and we commonly hear parents remark that Billy's tonsils will have to come out before he returns to school. An editorial writer in the *Journal of the Iowa State Medical Society*, August, 1938, offers the following as rules for guidance in determining whether the tonsils shall be removed: (1) Obstruction to normal breathing by hypertrophic tonsils and adenoids; (2) Recurrent tonsillitis; (3) Re-

current cervical adenitis; (4) Recurrent otitis media or sinus disease; (5) Systemic conditions, such as acute hemorrhagic nephritis, rheumatic fever, arthritis, etc. Somehow or other, the writer omitted one indication: when the school nurse says "must"!

Whether it be due to weather conditions, to the selection of lures or to the New Deal, fishermen in general report a rather poor season during the past summer. It is probable that the unusual rainfall has had much to do with this, since spots that heretofore have yielded more than an average catch this year seem to have failed most of us. We long ago gave up trying for the big ones and concentrated on the little blue gills that are wont to habitate in Indiana lakes, but to little avail. Three trips to a favorite haunt, this year, resulted in less than a dozen of the delectable though small pan fish.

The Council and the House of Delegates of the Minnesota State Medical Association, at the annual meeting held in Duluth, last June, voted to award an appropriate token to any member who had rendered valuable and distinguished service to that body. The following day the Council passed a resolution to the effect that the first of such awards be given Dr. E. A. Meyerding who had served for many years as full-time secretary of the state organization. The many friends of Dr. Meyerding will be glad to learn of this honor, signifying as it does a recognition of the valuable services he has rendered the Minnesota State Medical Association since 1924.

Dr. Irving S. Cutter, versatile conductor of "How to Keep Well," a column in the *Chicago Tribune*, and also head of Passavant Hospital, Chicago, and Dean of Northwestern University Medical School, makes a quaint observation in his *Tribune* column. In answer to the query, "Has the medical profession decided upon the one month most favorable for childbirth—for the welfare of the mother and the babe?" Dr. Cutter replied, "No. One month is as good as another. There are good arguments for each of the twelve. No government bureau has yet attacked the problem. We live in hope."

Recent comment from an Association member is to the effect that we do not have enough case reports in *THE JOURNAL*. Now, case reports do not grow on trees, and neither can *THE JOURNAL* staff reach up into the blue sky and pluck case reports therefrom; they must necessarily come from our readers. With more than three thousand

Hoosier doctors in our Association it does seem that we should have more of these interesting bits of reading. They need not be and should not be lengthy, but they should be very much to the point. Cudgel your brain, occasionally, and see if you can recall some recent case that might be of interest to your fellow practitioners.

"Bill" Wishard, son of "The Grand Old Man of Indiana Medicine," William Niles Wishard, Sr., has been appointed as the official photographer of the convention. "Bill" is a candid camera addict and has become expert in getting snaps while you are not looking, thus registering some unusual expressions. Many of these will appear in the November JOURNAL, along with the usual convention notes. These notes, begun several years ago, have come to be rather popular, it seems, since we receive a number of comments on them each year. Last year we received a letter from the editor of one of our western journals, asking us by all means to continue that feature of the post-convention number.

To date we have not been advised of any city seeking the convention for 1939. The House of Delegates will do well to consider carefully all such invitations, since but few Indiana cities can comfortably take care of our annual meetings. These have come to be so well attended that not only do we require a large housing facility, but a prime requisite is that the meeting place be so appointed as to be adequate for our needs. What with the general assemblies, the various section meetings, the special luncheon groups and the annual banquet, frequently with near one thousand tickets sold, our convention city must be able to guarantee that we will be conveniently and comfortably situated.

"The Roche Conference was a bold stroke at violent change. Whatever its other effects may prove to be, it has served the purpose of defining sharply three great needs presently facing our profession. First, it defines a need of which our State Society took notice a year ago; the need for a comprehensive and unbiased study of the adequacy and the availability of proper sickness care under our present system. Second, it defines a need for cool-headed cooperation between the informed heads of Medicine and the interested heads of Government. And finally, lest both the art and science of Modern Medicine be scattered to the four winds, it defines a crying need for much more singleness of thought and purpose among the physicians of America."—James C. Sargent, President's Page, Wisconsin Medical Journal, August 1938.

The opening of the special session of the A.M.A. House of Delegates presented an unusual picture for such gatherings. Here were assembled several hundred men representing the greatest of all the professions and coming from every section of our country, assembled to discuss a crisis in American medicine. There was not an air of suspense about the spacious room; rather did it appear that these men had foregathered for a definite purpose, that they realized the situation to its fullest extent and were determined to meet it squarely. The opening addresses were made by President Abell, President-elect Sleyster, and by the Speaker of the House, Shoulders. Each of these comments was brief and very much to the point and laid what appeared to us to be a very firm foundation for what was to come. A full report of the action of the House is found in this number of THE JOURNAL, together with editorial comment. We trust every member of the Indiana State Medical Association will carefully read these before leaving for the Indianapolis convention.

In one of the Councilor reports published in the September number of THE JOURNAL there is a comment in regard to county medical society meetings with which we are in entire accord. This councilor registers a decided objection to having most of the speakers before a county group of the "imported" variety. In certain of our counties, located near the larger cities, it is a very easy matter to obtain outside speakers. They, of course, are not wholly unaware of the prestige to be derived from speaking before neighboring groups and are alert to accept any and all such invitations. As a matter of fact, the prime purpose of county medical society meetings is to afford opportunity for the exchange of views and opinions among the assembled members. It has been our observation that the best meetings are those in which the members enter into a generous discussion of the topic of the evening and we have further observed that too often there is little or no discussion after listening to some "big shot" from a medical center. We do not decry the custom of having an occasional nationally known speaker address the county society but we do believe that at times it is grossly overdone.

A man who for several years served as lay executive secretary of a county medical society in a western state recently told us of an incident that points a moral and is a good story. Several years ago the lay press of the East got all excited about some doctor thereabouts having performed an "unusual" operation, that of correcting an "upside-down" stomach. The papers played it at a great rate and the press bureaus sent the story to their correspondents in the West. This secretary nosed about in his community and found

that several such operations of that sort had been done right in the local hospitals. Taking some newspaper boys into his confidence, he had them call on those who had been operated upon, get their pictures and their stories, all of which was played up on the front page of the two local newspapers for several days. The names of the surgeons were not mentioned, of course, but the stories made good reading and had the very definite effect of showing up the eastern press. It is not surprising that this enterprising secretary soon got a promotion; he now serves as executive secretary for a group of national medical organizations.

The Indiana Department of the American Legion has officially adopted the "Indiana Plan" and we quote herewith the resolution passed in regard to it:

"WHEREAS, the medical care of the people is being threatened by un-American application of socialistic principles, which also will be seriously detrimental to disease prevention efforts, and

"WHEREAS, the 'Indiana Plan' originated by the Indiana State Medical Association and endorsed and adopted by the medical profession nationally, offers a constructive plan for the enhancement and continuance of disease prevention and medical care based upon the same principles of Americanism to which the American Legion is dedicated,

"BE IT, THEREFORE, RESOLVED, that the Child Welfare Committee, Department of Indiana, adopt and endorse the 'Indiana Plan' as a proper plan for disease prevention and medical care."

To how many of your private patients have you explained just what socialized medicine means? To how many have you propounded the question, "Are you in favor of socialized medicine?" We have tried this out in a rather systematic way, of late, and have been amazed at some of the answers. Only the other day we asked those questions of a patient who replied that he did not know much about it. We showed him a press comment by an officer of an organization to which the patient belongs, in which the officer made it plain that his organization looked with much favor on governmental control of the practice of the healing art. We explained to this man just what such a program would mean, that with such a plan in universal operation over the country our physicians would be salaried men, paid by the month, and supervised by a politically controlled group. Whereupon said patient openly declared that he wanted none of it and would see to it that the local branch of his organization was informed about it. We believe that if Indiana physicians would take the time to explain the matter, there would be very

little demand for such a program. Trouble is, though, that some of our physicians really know very little about the subject!

At the recent special session of the House of Delegates of the American Medical Association, three members of the National Medical Association, an organization composed of some 5,000 Negro physicians, were invited to sit in as observers and later were accorded the privilege of the floor, an unprecedented event in Association history. These gentlemen had contacted the Board of Trustees of the Association, a day or two previous to the meeting, and had requested that they be permitted to look in on the House session, since their economic problems were exactly the same as those to come before the House. Each of these men addressed the gathering and their remarks brought forth great applause. It seems that in every community having a Negro population of consequence, Negro physicians are denied the right to care for the indigent of their own race. This is, of course, manifestly unfair and each of the three speakers stressed this point, the audience seeming to agree with them to the fullest extent. In an Indiana community a Negro physician has threatened to take the matter into court; if he does, it will be interesting to see just what comes of it. Our opinion is that Negro physicians most assuredly have the right to care for their indigents, a right that should not be denied them.

We dropped in at headquarters, the other day, noting a group of men about a table, each so intent on the business before him that our entrance was unnoticed. On inquiry we learned that this was a meeting of the banquet committee, making final plans for our annual convention dinner. This, as you know, is to be held in Murat Temple, where all sessions of the convention, together with the exhibits will be held. We managed to get a glimpse of the program and, in addition to stirring up a jaded appetite, it aroused our especial interest because of the list of speakers—not too many, but just enough to send every one home in high good humor. Of course, the president-elect of the American Medical Association, Rock Sleyster of Wisconsin, will be the feature speaker. For many years the Indiana delegation has signed up the A.M.A. big-man-to-be immediately after the election ballot is announced. Rock is a good talker, knows a whale of a lot about medical affairs (for ten years he was on the Board of Trustees, serving several years as chairman of the Board), likes medical meetings, and likes Indiana. Better pick up that banquet ticket when you register, not forgetting, of course, to take an additional ticket for the Missus—she will enjoy what has come to be the high spot of our annual get-togethers.

**REPORT OF THE PROCEEDINGS OF THE SPECIAL SESSION OF THE HOUSE OF
DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION, CHICAGO,
SEPTEMBER 16th and 17th, 1938**

GEORGE R. DILLINGER, M.D., DELEGATE

French Lick

At the third special session in the history of the organization, the House of Delegates of the American Medical Association convened at 10:00 a.m., September 16th, at the Palmer House, Chicago.

The special session was called to consider the recommendations of the National Health Conference, which was called by the Interdepartmental Committee to Coordinate Health and Welfare Activities, held in Washington, D.C., July 18-20, 1938, and such other problems as might be presented by the Board of Trustees.

Indiana was represented by the following delegates: F. S. Crockett of Lafayette, Don F. Cameron of Fort Wayne, Homer G. Hamer of Indianapolis, and George Dillinger of French Lick. The editor of *THE JOURNAL*, E. M. Shanklin of Hammond, and the executive secretary, Thomas A. Hendricks of Indianapolis, were present in their official capacities, as secretaries and editors were included in the call by request of the Board of Trustees. R. L. Sensenich of South Bend, trustee of the A.M.A., Herman Baker of Evansville, president of the Indiana State Medical Association, Norman Beatty of Indianapolis, chairman of the Legislative Committee, and Carl McCaskey of Indianapolis, member of the Executive Committee, were in attendance.

After the call to order, the first order of business consisted of forceful and pertinent addresses by the speaker, Dr. H. H. Shoulders of Nashville, Tennessee, the president, Dr. Irvin Abell of Louisville, Kentucky, the president-elect, Dr. Rock Sleyster of Wauwatosa, Wisconsin, and Dr. Arthur Booth, chairman of the Board of Trustees.

For the purpose of conducting business in special session, the speaker appointed seven committees: Reports of Officers; Miscellaneous Business; and a committee of twenty-five divided into five subcommittees to consider each of the recommendations of the National Health Conference. Two of the Indiana delegates were members of committees, Dr. F. S. Crockett serving on the committee of twenty-five, and Dr. Homer Hamer serving on the Miscellaneous Business Committee.

Numerous resolutions and plans dealing with the National Health Conference recommendations were introduced, coming from various state and county organizations. California delegates attempted to introduce an amendment to the Code of Medical Ethics, but it could not come before the House for consideration, because the business was limited to the subject of the call.

At the request of the House, Dr. R. G. Leland, Director of the Bureau of Economics, American

Medical Association, discussed medical care plans. He gave an outline of some of the main types of medical care plans now in operation or proposed throughout the United States by the medical profession and other organizations and agencies. He included a brief discussion of each type of approach and the approximate number of such efforts, according to available records which almost always understate the real number.

The House of Delegates welcomed and gave the privilege of the floor to representatives of the National Medical Association, and the American Dental Association. It was reported that the National Medical Association (Negro) had been approached by various agencies in an endeavor to have them accept various types of medical practice contrary to the policies of the American Medical Association. At their recent convention, the National Medical Association refused to accede to these requests and cast their lot with the American Medical Association.

**RECOMMENDATIONS OF THE COMMITTEE ON
REPORTS OF OFFICERS**

The reports were commended and adopted with only minor changes in phraseology. The indefiniteness of the program adopted by the National Health Conference was emphasized. It was pointed out that component medical societies are now carrying out many plans for medical care in accordance with the principles of the American Medical Association. It was also brought out that Hospital Insurance Plans had never been condemned so long as they did not involve the giving of medical service. Opposition to any doctrine that would lower the standard of medical care was stressed.

It was pointed out that in many sections of the country little or no effort had been made to carry on the nation-wide health survey of the American Medical Association. The utmost importance of having every component organization complete the survey at the earliest possible moment, so that the record will be complete before the next session of Congress, was brought out.

The report of the Board of Trustees brought out that a new ruling by a deputy commissioner of internal revenue, contrary to a former ruling, had declared that the American Medical Association is a business league and, as such, is liable to several years of back taxes. The former ruling stated that the A.M.A. was a scientific and educational organization. The Board of Trustees decided not to accept the new ruling and appealed

the case. The House commended the action of the Board of Trustees.

REPORT OF THE COMMITTEE OF TWENTY-FIVE

After consideration of the report of the National Health Conference and the various resolutions introduced into the House, the reports of the various sub-committees were submitted to the five sub-committee chairmen for final compilation. (The complete report is published at the end of this article.) In brief the following reports were made and adopted:

1. Expansion of Public Health and Maternal and Child Health Services.

The establishment of a Federal Department of Health, headed by a doctor of medicine who is a member of the Cabinet, is recommended. Expansion of public health services is approved, but should be done through the state departments of health on the approval of the state medical associations. The treatment of disease should not be done except when impossible by private practitioners. The proposal of the National Health Conference to spend huge sums for maternal and child care should not be adopted without specific information as to the purpose of the expenditures.

2. Expansion of Hospital Facilities.

The expansion of hospital facilities is favored where the need exists. However, there is a great variation in the figures presented to the National Health Conference and those on record in the files of the American Medical Association. The need of use of the existing hospital facilities was stressed. Payment of the necessary cost of hospitalization of the "medically indigent" in private and organizational hospitals would increase their stability and improve their services.

3. Medical Care for the Medically Needy.

Indigent care should be handled by local facilities, with the cooperation of the local medical societies. State aid may be necessary in poorer communities. Federal funds for this purpose should be appropriated only when state funds are not available.

4. A General Program of Medical Care.

The principle of hospital service insurance is approved, provided that the plans do not include medical care. Local plans must be made to meet local requirements. The soundness of the existing workmen's compensation laws and of cash or voluntary indemnity insurance to take care of emergency or prolonged illness is recognized. Increased use of this type of service is recommended; however, this type of plan must comply with existing state laws and meet with the approval of the county and state medical societies.

5. Insurance Against Loss of Wages During Illness.

Compensation for the loss of wages during illness is approved, provided that the attending physician is relieved of certifying disability.

The recommendations of the committee were unanimously adopted by the House of Delegates. A committee of seven practicing physicians, under the chairmanship of the president of the American Medical Association, was appointed by the Speaker to confer with a committee of the Government. The seven are: Dr. Irvin Abell, Louisville, president of the A.M.A.; Dr. Henry A. Luce, Detroit, Michigan; Dr. F. E. Sondern, New York; Dr. Walter E. Vest, Huntington, West Virginia; Dr. Walter F. Donaldson, Pittsburgh; Dr. Fred W. Rankin, Lexington, Kentucky, and Dr. Edwin H. Cary, Dallas, Texas.

REPORT OF REFERENCE COMMITTEE ON CONSIDERATION OF THE NATIONAL HEALTH PROGRAM

(Adopted at Special Session, House of Delegates, American Medical Association, Chicago, Sept. 17, 1938.)

Since it is evident that the physicians of this nation, as represented by the members of this House of Delegates convened in Special Session, favor definite and decisive action now, your committee submits the following for your approval:

1. Under Recommendation I on Expansion of Public Health Services: (1) Your committee recommends the establishment of a federal department of health with a secretary who shall be a doctor of medicine and a member of the President's cabinet. (2) The general principles outlined by the Technical Committee for the expansion of public health and maternal and child health services are approved and the American Medical Association definitely seeks to cooperate in developing efficient and economical ways and means of putting into effect this recommendation. (3) Any expenditure made for the expansion of public health and maternal and child health services should not include the treatment of disease except in so far as this cannot be successfully accomplished through the private practitioner.

2. Under Recommendation II on Expansion of Hospital Facilities: Your committee favors the expansion of general hospital facilities where need exists. The hospital situation would indicate that there is at present greater need for the use of existing hospital facilities than for additional hospitals.

Your committee heartily recommends the approval of the recommendation of the technical committee stressing the use of existing hospital facilities. The stability and efficiency of many existing church and voluntary hospitals could be assured by the payment to them of the costs of the necessary hospitalization of the medically indigent.

3. Under Recommendation III on Medical Care for the Medically Needy: Your committee advo-

cates recognition of the principle that the complete medical care of the indigent is a responsibility of the community, medical and allied professions, and that such care should be organized by local governmental units and supported by tax funds.

Since the indigent now constitute a large group in the population, your committee recognizes that the necessity for state aid for medical care may arise in poorer communities and the federal government may need to provide funds when the state is unable to meet these emergencies.

Reports of the Bureau of the Census, of the U. S. Public Health Service and of life insurance companies show that great progress has been made in the United States in the reduction of morbidity and mortality among all classes of people. This reflects the good quality of medical care now provided. Your committee wishes to see continued and improved the methods and practices which have brought us to this present high plane.

Your committee wishes to see established well coordinated programs in the various states in the nation, for improvement of food, housing and the other environmental conditions which have the greatest influence on the health of our citizens. Your committee wishes also to see established a definite and far-reaching public health program for the education and information of all the people in order that they may take advantage of the present medical service available in this country.

In the face of the vanishing support of philanthropy, the medical profession as a whole will welcome the appropriation of funds to provide medical care for the medically needy, provided, first, that the public welfare administrative procedures are simplified and coordinated; and second, that the provision of medical services is arranged by responsible local public officials in cooperation with the local medical profession and its allied groups.

Your committee feels that in each state a system should be developed to meet the recommendation of the National Health Conference in conformity with its suggestion that "The role of the federal government should be principally that of giving financial and technical aid to the states in their development of sound programs through procedures largely of their own choice."

4. Under Recommendation IV on a General Program of Medical Care: Your committee approves the principle of hospital service insurance which is being widely adopted throughout the country. It is capable of great expansion along sound lines, and your committee particularly recommends it as a community project. Experience in the operation of hospital service insurance or group hospitalization plans has demonstrated that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care.

Your committee recognizes that health needs and means to supply such needs vary throughout the United States. Studies indicate that health needs are not identical in different localities but that they usually depend on local conditions and therefore are primarily local problems. Your committee therefore encourages county or district medical societies, with the approval of the state medical society of which each is a component part, to develop appropriate means to meet their local requirements.

In addition to insurance for hospitalization we believe it is practicable to develop cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness. Agencies set up to provide such insurance should comply with state statutes and regulations to insure their soundness and financial responsibility and have the approval of the county and state medical societies under which they operate.

Your committee is not willing to foster any system of compulsory health insurance. Your committee is convinced that it is a complicated, bureaucratic system which has no place in a democratic state. It would undoubtedly set up a far reaching tax system with great increase in the cost of government. That it would lend itself to political control and manipulation there is no doubt.

Your committee recognizes the soundness of the principles of workmen's compensation laws and recommends the expansion of such legislation to provide for meeting the costs of illness sustained as a result of employment in industry.

Your committee repeats its conviction that voluntary indemnity insurance may assist many income groups to finance their sickness costs without subsidy. Further development of group hospitalization and establishment of insurance plans on the indemnity principle to cover the cost of illness will assist in solution of these problems.

5. Under Recommendation V on Insurance Against Loss of Wages During Sickness: In essence the recommendation deals with compensation of loss of wages during sickness. Your committee unreservedly endorses this principle as it has distinct influence toward recovery and tends to reduce permanent disability. It is, however, in the interest of good medical care that the attending physician be relieved of the duty of certification of illness and of recovery, which function should be performed by a qualified medical employee of the disbursing agency.

6. To facilitate the accomplishment of these objectives, your committee recommends that a committee of not more than seven physicians representative of the practicing profession under the chairmanship of Dr. Irvin Abell, President of the American Medical Association, be appointed by the Speaker to confer and consult with the proper federal representatives relative to the proposed National Health Program.

President's Page

Generally speaking, the average European understands quite well why we here in America do not wish to be drawn into the terrible disorder of Europe, but it seems impossible for him to understand why we do not get along better in our own isolated and excellent position. The average man in Europe will say, "Your people occupy a rich land that is not overcrowded, that has plenty of room for expansion and is not surrounded by enemies. You have the opportunity to make the most that could possibly be made of a modern civilization and you have an independence that surpasses our understanding."

Very recently I had the pleasure of spending the day with an acquaintance from Europe who is somewhat of a world traveler and he pointed out these things, together with the reproach that here we are quarreling among ourselves and unable to keep our people prosperous and at work. "It seems to me quite impossible," he said, "to understand why you cannot give us a demonstration of what real freedom means to mankind. If you would not concern yourselves with the affairs of Europe, why could you not give us inspiration and example? Why is it not possible for you to show the common sense and the good will for want of which Europe may destroy itself?" My friend went on to explain that the average European does not reproach us Americans for the fact that we do not want to become involved in their problems and in their troubles. They envy us our position in that we are able to remain free of such troubles. But he says, also, that from his point of view, having lived in the presence of issues which seem utterly insoluble, he could not understand why we were bickering and fighting over issues that seem so entirely soluble with the application of just a little intelligence and common sense. He also went on to say that our musing of the situation certainly tarnishes for the average European the ideals for which he knows that he may ultimately sacrifice his life. My friend further said that if only the politicians and the business leaders, the labor leaders and the social leaders in this country could spend a day in the company of men who have to carry responsibility and make decisions daily—if only we Americans could experience that, we might come back home chastened with humility, which is the beginning of wisdom. Compared with the awful anxieties that weigh upon the people of Europe, the terrible sense of danger from without and upheaval within, American political issues are ridiculously simple.

He went on to say something about the freedom of contact with the leaders in this country and those whom they were leading—he tried to compare the situation with guarded, shrouded,

deified personages who decide the fate of European peoples in Rome, in Berlin and in Moscow. He pointed out that there could be free exchange of ideas between the President and business and professional leaders at any time—many of whom may well be personal friends or acquaintances.

In discussing this same question recently, Walter Lippmann said, "The world cannot afford the luxury of useless and wholly unnecessary quarreling at the center of the greatest democracy of all. It is as if the officers of a ship working its way through stormy and treacherous seas were to leave the bridge in order to quarrel whether their meals were sufficiently well cooked."

Thus it would seem to me that the highest duty of the American people to humanity is to make democracy a success—to demonstrate that free institutions may be maintained and made of service to mankind, to serve liberty, religious freedom, order and law—a task which, under present circumstances, calls for the best in thought and purpose and patriotism that a great people can offer. It calls for a singleness of purpose—a united effort of the whole people. If we fail in this respect, our highest service to humanity is at an end and our own people will have been betrayed.

Now, to focus these generalizations on the problems of medicine: This writer has spoken to many people in various parts of the United States these past two years, people in all walks of life, and there seems to be in all ranks of society a unanimity of opinion that there must be a re-orientation of our thinking about medical practice in America. There are, of course, widely diverged views as to how this shall be accomplished, but with all, it would seem comparatively simple if we approach the problem in the spirit of science. It seems to me that there are only two questions to be answered: What is the truth? What is best for all the people? If these two questions are honestly answered, there remains no problem.

* * *

The above was written before the meeting of the House of Delegates of the American Medical Association in Chicago, September 16. I believe that the action taken by the House is a correct answer. I believe that the American medical profession has attempted to show that at least one group in our American life is trying its utmost to demonstrate that free institutions may be maintained and made of service to mankind, and that our profession has offered a satisfactory answer to the challenge of society.

Herbert M. Parker

POSTGRADUATE COMMITTEE OFFERS INTENSIVE COURSES
IN OBSTETRICS AND GYNECOLOGY AT INDIANA
UNIVERSITY SCHOOL OF MEDICINE

The Postgraduate Committee of the Indiana State Medical Association cooperating with the Indiana University School of Medicine announces that, beginning on November 1, intensive two weeks courses in obstetrics will be offered on the campus of Indiana University School of Medicine, the outline of which is shown below.

Lectures for the postgraduate course in obstetrics will include: (1) prenatal care, (2) mechanisms of labor, (3) management of labor (first stage—analgesia), (4) management of labor (second stage—forceps and version)—section, (5) management of puerperium, (6) hyperemesis, (7) hemorrhage during pregnancy, (8) hemorrhage during labor, (9) toxemia of late pregnancy, (10) urinary infections, (11) sepsis, and (12) syphilis.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Contin- uous	OUT-PATIENT DELIVERY SERVICE						O U T
	HOSPITAL OBSERVATION SERVICE Coleman III and City Hospital						P A T
	8-9:45 A.M.	Prenatal Coleman	Conference	Prenatal Lues	Conference	Prenatal Coleman	Clinic Pediatrics Riley Hosp.
	10-10:50 A.M.	Bedside Coleman	Bedside City Hosp.	Bedside Coleman	Bedside City Hosp.	Bedside Coleman	Bedside City Hosp.
	11-12 M.	Lecture	Lecture	Lecture	Lecture	Lecture	Lecture
	1-2 P. M.	Lecture Pediatrics	Postnatal Clinic City Hosp.	Clinical Conference	Postnatal Clinic Coleman Hosp.	Lecture Pediatrics	Lecture
	2-3 P.M.	Clinic Pediatrics Coleman			Clinic Pediatrics Riley Hosp.	Anatomy	
	3-4 P.M.	CLINICO-PATHOLOGICAL COURSE					S E R
	4-6 P.M.	MANIKIN PRACTICE					V I C E
	8-10 P.M.		Marion C.C. Medical Society		Medical School Seminar		

The length of these courses will be two weeks each, and will be continuous from November 1, 1938, to May 1, 1939. These two weeks courses will be offered to all members of the medical profession, but are especially designed for those physicians practicing in areas of severe economical depression, and in the strictly rural areas. There

will be accommodations for four physicians at each of these two-weeks courses. These doctors will reside at the Coleman Hospital, Indiana Medical Center, Indianapolis, and there will be no charge for tuition, board and room.

The work will be under the full time direction
(See next page)

APPLICATION BLANK

Name Age..... Date of Graduation.....

Street Address..... City.....

Member of.....County Medical Society. (Not required.)

INDICATE PREFERENCE:	1st choice	2nd choice	3rd choice
Courses begin on 1st and 15th of each month. November 1938 to May 1939, inclusive. Be sure to give 1st, 2nd and 3rd choices.	First..... (month)	(month)	(month)
	Fifteenth..... (month)	(month)	(month)

MAIL THIS BLANK TO: INDIANA STATE MEDICAL ASSOCIATION
1021 Hume Mansur Building, Indianapolis

of Dr. Carl P. Huber, formerly of the Lying-In Hospital and Dispensary of Chicago University, now Resident Advisor and Research Director in Obstetrics and Gynecology of Indiana University School of Medicine. In addition, the regular staff members of the Department of Obstetrics and the Department of Pathology will assist in giving these courses. As seen by the accompanying outline, these intensive obstetrical courses will include bedside clinics, antepartum and postpartum care, attendance at all deliveries, both normal and abnormal, during the two weeks residency at Indiana Medical Center, manikin demonstration, care of the newborn and premature infant, didactic lectures, and special demonstrations and lectures in gross pathology.

Physicians wishing to apply for these courses are urged to do so at once, as applications will be filed in the order in which they are received. Applicants are asked to give a first, second, and third choice of the dates on which they would like to attend. On October first, each county medical society secretary will be sent a letter, outlining the courses, as well as receiving application forms. It is asked that each secretary bring this matter before his respective society and, if possible, choose among themselves the applicants, as it is to be remembered that only four men can be accommodated at each two-weeks' course. The final selection of the applicants will be decided by the members of the Postgraduate Committee.

These courses in postgraduate education are made possible without cost to the postgraduate student through the additional cooperation of the Bureau of Maternal and Child Health of the Indiana State Board of Health in extending its postgraduate program in obstetrics and pediatrics.

ABSTRACT

OPPORTUNITIES FOR THE TRAINING OF FUTURE INTERNISTS

J. H. MUSSER, New Orleans (*Journal A. M. A.*, April 23, 1938), points out that most of the specialties are well defined and sharply segregated divisions of medicine, but in internal medicine there is no such boundary, no such clear-cut boundary as demarks the specialist in such a branch as ophthalmology. There are very few institutions devoted solely to internal medicine, and very scanty are the number of residencies available in the field of internal medicine. This, of course, is largely relative. Proportionately there should be many more internists than ophthalmologists, gynecologists or obstetricians. Almost every person sometime or another has an internal disease and consults an internist, but males do not have babies nor do they have the female disorders that the gynecologist treats. Most people go through life without consulting an otologist. Relatively few are the number who have dermatologic diseases or disorders, and most of us are not crazy. Consequently there should be a large number of places and institutions where the young physician who wants to become an internist should have the opportunity of preparing himself for his future medical life. The possibilities for instruction include (1) university fellowship, (2) clinic fellowship, (3) hospital residency, (4) preceptorship and (5) formal graduate training.

CONFERENCE OF INDIANA HEALTH OFFICERS

HOTEL SEVERIN—INDIANAPOLIS

OCTOBER 3-4, 1938

Monday Morning, October 3

- 9:00 A.M. Registration begins.
 10:00 A.M. Meeting called to order.
 FUNCTIONS AND ACTIVITIES OF THE STATE BOARD OF HEALTH, Verne K. Harvey, M.D., Director, Indiana State Board of Health
 EPIDEMIC DISEASE CONTROL IN THE SCHOOLS, J. W. Jackson, M.D., Epidemiologist of the State Board of Health
 LONG RANGE PUBLIC HEALTH PLANNING, C. C. Applewhite, M.D., Senior Surgeon, Regional Consultant, U. S. Public Health Service, Chicago
 REPORT OF THE SYPHILIS COMMITTEE, F. R. Nicholas Carter, M.D., Chairman, Committee on Syphilis Control, Indiana State Medical Association.

Monday Afternoon, October 3

- 2:00 P.M. HEALTH EDUCATION
 CO-OPERATIVE PLANNING BETWEEN STATE BOARD OF HEALTH AND STATE DEPARTMENT OF EDUCATION ON HEALTH EDUCATION, Thurman B. Rice, M.D., Chief of Bureau of Health and Physical Education, Indiana State Board of Health; and Floyd I. McMurray, State Department of Public Instruction
 STANDARDS IN HEALTH EDUCATION, Dr. L. A. Pittenger, President, Ball State Teachers' College
 THE RELATION OF A SOUND SCHOOL MEDICAL SERVICE TO THE PRIVATE PHYSICIAN, Harold H. Mitchell, M.D., District Health Officer, New York City Health Department
 Discussion by Dr. W. W. Patty, Professor of Education and Director of the Physical Welfare Training Department, Indiana University

Tuesday Morning, October 4

- 10:00 A.M. GENERAL SESSION
 REMARKS AND GREETINGS FROM THE INDIANA STATE MEDICAL ASSOCIATION, Herman M. Baker, M.D., Evansville, President, Indiana State Medical Association
 EPIDEMIOLOGY OF POLIOMYELITIS, J. P. Leake, M.D., U. S. Public Health Service, Washington, D. C.
 PNEUMONIA—A PUBLIC HEALTH PROBLEM, Wm. J. McConnell, M.D., New York City, New York

Convention Announcements

ADDITIONAL FRATERNAL AND LUNCHEON MEETINGS

(These and other announcements will appear in the convention program book.)

NU SIGMA NU

Members of Nu Sigma Nu fraternity will hold a luncheon meeting at the Columbia Club, Wednesday, October fifth, at 12:30. Reservations may be made with Dr. Eugene W. Austin, 323 Hume Mansur Building, Indianapolis.

* * *

PHI CHI

Phi Chi members will have a Beefsteak Dinner at 12:30 p. m., Wednesday, October fifth, at the Athenaeum. Tickets will be obtainable at the registration desk. Reservations may be made with Dr. W. E. King, 811 Hume Mansur Building, Indianapolis.

* * *

CLASS OF 1907

The Indiana Medical College Class of 1907 will hold a luncheon meeting at the Athenaeum, Wednesday noon, October fifth. Reservations may be made at the registration desk.

* * *

AVIATION MEDICINE

Physicians interested in aviation medicine are invited to a luncheon meeting which will be held Wednesday noon, October 5. Reservations may be made with Dr. Wilbur Smith, 1818 College Avenue, Indianapolis. (Telephone Hemlock 5122).

Members of the Indiana State Medical Association who wish to hear the proceedings of the House of Delegates are invited to attend the first session in the Murat Temple, Tuesday afternoon, October fourth, at four o'clock. Officers of county societies and members of county legislative committees are particularly urged to attend.

REFERENCE COMMITTEES 1938

Reports of Officers

Chairman—J. T. Oliphant, Farmersburg
H. P. Graessle, Seymour
A. C. Yoder, Goshen
Minor Miller, Evansville
W. C. Wright, Fort Wayne

Sections and Section Work

Chairman—Earl Van Reed, Lafayette
P. H. Schoen, New Albany
R. H. Pierson, Spencer
M. D. Wygant, Mishawaka
Carl Clark, Oakland City

Rules and Order of Business

Chairman—O. T. Scamahorn, Pittsboro
W. E. Jenkinson, Mt. Vernon

J. C. Shattuck, Brazil
B. W. Egan, Logansport
R. B. Cochran, Vincennes

Medical Education and Hospitals

Chairman—O. O. Alexander, Terre Haute
R. L. Sensenich, South Bend
M. B. Catlett, Fort Wayne
Walter M. Stout, Newcastle
R. R. Acre, Evansville

Public Policy and Legislation

Chairman—Jesse E. Ferrell, Fortville
T. W. Oberlin, Hammond
O. R. Spigler, Terre Haute
E. O. Asher, New Augusta
Charles Gillespie, Seymour

Publicity

Chairman—C. V. Rozelle, Anderson
James F. Balch, Indianapolis
Simeon Lambright, Covington
A. E. Stinson, Rochester
Philip Corboy, Valparaiso

Hygiene and Public Health

Chairman—C. L. Botkin, Muncie
W. P. Morton, Indianapolis
Albert Fisher, North Judson
W. L. Green, Columbus
G. S. Row, Osgood

Amendments to Constitution and By Laws

Chairman—M. R. Lohman, Fort Wayne
Will Thompson, Liberty
Max Gitlin, Bluffton
Paul Garber, South Whitley
E. L. Libbert, Lawrenceburg

Committee on Credentials

Chairman—O. W. Sicks, Indianapolis
T. Z. Ball, Crawfordsville
H. C. Knapp, Huntingburg
J. C. Glackman, Rockport
A. A. Thompson, Tyner

Committee on Miscellaneous Business

Chairman—Hugh S. Ramsey, Bloomington
Philip E. Yunker, Evansville
S. M. Cotton, Goldsmith
Ralph Lochry, Indianapolis
King L. Hull, Bloomfield

CORRECTION

In the list of hotels listed in THE JOURNAL last month, one hotel-member of the American Hotel Association was inadvertently omitted. It should have been listed as follows:

Eastgate Hotel	357 E. Washington Street
Number of rooms.....	100
Without bath, single.....	\$1.25
Without bath, double.....	2.25 \$2.50
With bath, single.....	2.00 2.25
With bath, double.....	3.00 3.25
Twin beds.....	3.75

VANDEBURGH COUNTY COMPLETES THE A. M. A. SURVEY

The Vanderburgh County Medical Society always has been proud of its cooperation with state and national medical organizations. Its representatives were immediately impressed with the importance and potentialities of the proposed survey of the American Medical Association, and at a meeting on March 29, 1938, called for the purpose of discussing the problem, it was decided to make an assessment upon members for the purpose of employing a competent person to conduct the survey and collect the data. Mr. John F. Berry, a public accountant, was employed, and he completed the survey in four months. A committee was appointed to supervise the work and to act with Mr. Berry in determining the sources and the best methods of obtaining the information desired.

Evansville, the largest center of population in the area, has a population of 102,249. Vanderburgh County has a population of 116,900, with 134 physicians in active practice, 61 dentists in active practice, 155 full time private duty nurses, 23 public health nurses, and 82 pharmacists. For the whole area, the average is one physician for each 872.4 persons. The area is served by three general hospitals and one tuberculosis hospital. These provide a total of 582 beds of which the private rooms were 85.25% occupied in 1937, the semi-private rooms were 84.33% occupied in 1937, and the ward beds were 87.39% occupied during 1937.

A visit was made to each physician and each dentist in the county, and instruction was given in regard to the questionnaire and the interpretation of each question so that a uniform return in answers would be assured. Of the 134 physicians, 101 or 75.37% returned their completed forms; of the 61 dentists, 32 or 52.46% returned the forms; 4 of 4 hospitals, 4 of 4 nursing organizations, 2 of 2 health departments returned the forms, and there were also represented 13 welfare and relief agencies, 59 schools, 1 college, 82 pharmacists, and 303 other organizations. These latter sources of information were contacted by the society's representative in person which accounts for the 100% return on the forms. The returns from physicians and dentists were entirely voluntary.

It is perhaps appropriate to mention that the representative was received cordially and that data concerning the distribution and cost of medical care in all phases was placed at his disposal whenever possible. Books and records were given to him; he was shown through small hospitals and first aid rooms; he was allowed to watch and inspect their operations, and he made a full report of each on the forms provided. In particular, the representative noticed that every one seemed

anxious to discuss their medical care, and they seemed vitally interested in this national question.

The data collected disclosed that eight miles is the greatest distance that any person would need to travel to see a physician in this area.

Hospital room rates are \$2 to \$3 per day in wards, \$3 to \$4 per day in semi-private rooms, and \$4 to \$6.50 per day in private rooms. The tuberculosis hospital low rate is based upon the ability of the patient to pay a maximum of \$3 per day.

The community is served by two outpatient departments or clinics, two clinics operated by health departments, and one clinic operated by another organization; these include one clinic for maternity and child welfare, one for venereal diseases, and one for dentistry.

FACILITIES FOR MEDICAL CARE IN VANDEBURGH COUNTY

There are eleven agencies which arrange for or provide care in physician's office or dentist's office, eleven that arrange for or provide medical care in the home, thirteen that look after hospitalization, and ten that arrange for or provide drugs, eyeglasses, surgical appliances, etc.

Fifty-nine schools below the college level have health supervision services, three such services are under control of the Board of Education, three under the Public Health Nursing Association. There are two inspection services, two examination services, and two medical treatment services. One college has student health services.

In addition, there are twenty-five other organizations that provide medical services: 17 in plants, 8 for special groups. There is *none* for the general public.

FREE AND PART-PAY MEDICAL CARE

In 1937, physicians in Vanderburgh County gave free service to 19,286 persons; dentists served 1,971 persons without charge, and this work represented a donation of 6,994 hours of work by the physicians and 1,366 hours by dentists. Hospitals cared for 8,954 pay and part-pay patients, 1,656 public charges, and 1,814 free patients, and of the last group 76 were referred to the hospitals for free care by physicians, 690 were referred by relief and welfare agencies, 111 were referred by other agencies, and organizations, and 101 were by direct application.

The number of days of hospital care for these patients was: For pay and part-pay patients, 91,581 days; for public charges, 15,795 days; for free patients, 40,860 days. In the outpatient departments, clinics, and dispensaries, 9,777 patients were served with visits totalling 18,276. Nursing visits to private patients totalled 4,548; to public charges 54,960, of which 80.85% were made with no charge at all to the patient.

Pharmacists compounded 20,216 prescriptions without charge and 5,850 were prepared at cost or at reduced fees. Medicines to indigents were provided by township trustees and three small private societies.

Funds for this care for the indigent are derived from city or county and state governmental funds, and from the community chest, philanthropic agencies, and individual donations.

NEED FOR MEDICAL CARE

During 1937, there were sixty-five patients in Vanderburgh County who needed hospital care but who were not admitted as bed patients because hospital facilities were fully occupied at the time the applications were made.

No patients who needed medical service were turned away from outpatient departments.

Of persons visited by nurses who were not receiving medical care, private nurses reported none, and public nurses are permitted to make no more than two calls upon any patient who has no physician.

Small incomes and large families resulted in inability to pay for medical service at prevailing rates even though physicians were willing to be paid "on time."

No requests for public health nursing services were refused; thirty-one requests for private duty nurses could not be filled because all private duty nurses were busy.

No requests were made of the health department for medical care during 1937. Records in this respect are not kept. Temporary emergency care is always available through township trustees' physician service, except transient cases who are ambulatory. Some who were reported by nurses as needing medical care refused it for such reasons as that the patient (or parents) did not believe in removing tonsils or wearing glasses. These are principally folk whose ideas are handed down from father to son, and they are not influenced by religious or other cults.

No persons were reported by welfare or relief agencies as needing medical care which could not be supplied or obtained.

In the public schools, 12,743 were reported as needing dental care, and 1,299 as needing medical care. None were unable to secure recommended attention because of lack of money, but some parents neglected to have the work done or thought it was unnecessary.

The total number of persons in the county in 1937 who were unable to obtain either medical, dental, nursing, or hospital care was ELEVEN.

PREVENTIVE MEDICAL SERVICES

Sixty-eight physicians in private practice, twenty-seven for other agencies, and thirty-seven for health departments reported performing preventive medical services.

No births were reported as being unattended by a physician or a midwife. Of the total number of

obstetrical patients reported, 46.42% waited until after the third month of pregnancy to consult their physicians. Sixty-two per cent of the children who attended school for the first time in 1937 were successfully vaccinated against smallpox.

GENERAL INFORMATION

Vital statistics for Vanderburgh County for 1937 were:

Birth rate	19.3
Death rate	15.8
Maternal mortality rate	6.6
Diphtheria mortality rate	5.9
Diphtheria morbidity rate	16.2
Infant mortality rate	58.

Seventy-four pharmacists reported an increase in sale of medicines on physicians' prescriptions in 1937 over 1936; eight reported a decrease.

There is no arrangement in existence by which the county medical society will undertake to provide or arrange for medical services for those who need them and are unable to pay for such services.

CONCLUSIONS

(From Comments on the returns by physicians.)

No one in the Vanderburgh County area really suffers or needs to suffer from lack of medical, dental, or surgical service.

Home and hospital care of indigents is sufficient. Patients in the home always can obtain adequate care by applying to the township trustee, and if hospitalization is needed, it will be provided. Adequate attention is given by hospital staff and house physicians.

Those who are unable to pay for medical care are the same group that always have had free care, and they are not the result of the depression. They are shiftless, of low mentality, and incapable of doing any but the poorest paid work. They never will be self-supporting or respectable, but they always will be prolific.

As social conditions become readjusted, new adjustments are required in medical practice.

There is a definite need for some arrangement for a sliding scale of fees.

If there is a fault, it is due to lack of organization and lack of control of organization work by the medical profession. There is need for a central agency through which those in need of services may be directed and their progress supervised. This could include social service supervision so that the proper status of the individual could be determined. There are too many agencies in operation now.

RECOMMENDATIONS

(These items also are gleaned from the reports of individual physicians.)

A hospital or hospital wing for contagious diseases is needed.

Each hospital should have an outpatient department controlled and managed by members of the

society; fees from the trustee should be paid to the society.

A sliding scale of fees to meet requirements of individual family income is needed.

The political aspect of medical care of the indigent should be eliminated.

A free clinic should be established, sponsored by the medical society, to which each member of the society would devote a certain number of hours each month.

There should be no contract agreements between trustees and physicians. Patients should be able to choose their own physicians.

Facilities for x-ray and radium therapy in malignancy is needed for the lower income group.

The medical society should arrange for mothers and expectant mothers to have suitable medical and dental information in regard to themselves and their children.

Negro public health nurses and physicians should be available.

A full time health officer is needed.

Physicians should prescribe and not dispense.

Medical fees perhaps need some adjustment to meet the needs of the middle class. (Sliding scale of fees.)

If the same effort were made to educate the public to the advantages of medical and dental services as is used to "sell" the public on shows, automobiles, and confections, there would be little need for charity in the medical field.

Under the Capitol Dome

ANNUAL REPORT FROM CENTRAL STATE HOSPITAL

In his annual report for the last fiscal year, Dr. Max A. Bahr, superintendent of the Central State Hospital at Indianapolis, said that the total number of all new admissions, including cases of general paralysis, who had a positive blood serology for syphilis, was 24 per cent. This figure, his report said, compares with slightly over 10 per cent for the Indianapolis City Hospital, a little over 3 per cent for the Riley Hospital for Children and about 3 per cent for the Coleman Hospital for Women.

Dr. Bahr's report said that if the total figure of 24 per cent of syphilis among all first admissions were broken down among male and female patients, the result is as follows: 29 per cent of men and 18.6 per cent of female patients had a positive serology for syphilis on admission. There were 54 instances of syphilis among the men, and of these 38 had general paralysis, while there were 38 instances of syphilis among new female patients but only 17 of them were afflicted with general

paralysis. The total number of new admissions was 439, an increase over new admissions in 1937 when there were 362, and over 1936 when there were 342. Of the new admissions, 209 were men and 230 women. Eight men and 36 women were discharged as recovered, while 75 men and 75 women were discharged as improved. Thirty-four men and 7 women were discharged as unimproved. Deaths of 84 men and 80 women were reported. The total average daily number of patients present during the year was 1,880.724, of whom 845.018 were men and 1,035.706 were women. At the end of the fiscal year there were 2,002 patients on the institution's books, as compared with 1,962 at the close of 1937, and 1,939 at the close of 1936.

The total per capita expenditure for maintenance and operation of the hospital for the fiscal year was \$231.69, a decrease of 84 cents from the preceding fiscal year. The net per capita cost of operating and maintenance was \$224.01, an increase of \$3.25 due to reduced receipts from pay patients and sale of discarded property.

Indiana has an investment of \$3,571,314.34 in the Central State Hospital, including real estate, buildings, improvements, and equipment and supplies.

INSURANCE IN INDIANA

Hoosier citizens have bought and have in force nearly three billion dollars in life insurance policies, according to the state insurance department. Insurance in force totals \$2,802,070,669.69. These policies are in life insurance companies of Indiana, of other states, and of foreign countries, and in fraternal associations. The largest amount of the insurance has been written by regular life insurance companies incorporated in other states, and their total is \$2,373,673,314.28. Hoosiers carry insurance totaling \$122,839,304.93 in fraternal associations incorporated in states other than Indiana.

Families and other beneficiaries of persons holding life insurance policies received \$28,939,631.33 in benefits during the last year.

NEW ALBANY TO HAVE STATE TUBERCULOSIS HOSPITAL

New Albany was selected as the site for the new Southern Indiana Tuberculosis Hospital which was authorized by the recent Special Session of the Indiana General Assembly. Construction will be started by January 1 next year. The work will be a part of the Indiana contribution to the President's nation-wide recovery program through construction and fifty-five per cent of the cost of the new Hoosier institution will be borne by the Public Works Administration.

Officials of the state department of public welfare have indicated that additional tuberculosis hospitals may be constructed in localities showing the greatest needs.

Deaths

FRANK MARION FITCH, M.D., of Indianapolis, died August twenty-first, aged sixty-three years. Dr. Fitch had practiced in Indianapolis for thirty years. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. He graduated from the Medical College of Indiana, Indianapolis, in 1904.

WESLEY HAROLD MCKNIGHT, M.D., of Bedford, died in a Chicago hospital, September ninth. Dr. McKnight was forty-two years old. He was senior staff member of the Walsh Memorial Clinic and had practiced in the community of Bedford for sixteen years. He graduated from the Indiana University School of Medicine, Bloomington and Indianapolis, in 1920, and was a member of the Lawrence County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ROBERT C. MILBURN, M.D., of Muncie, retired physician, died September fourteenth, aged seventy-eight years. Dr. Milburn came to Muncie in 1913, and for many years before that he had practiced in Logansport. Dr. Milburn graduated from the Barnes Medical College in St. Louis in 1899.

JAMES E. GUDGEL, M.D., of Cynthiana, aged eighty years, died September seventeenth at his home following an illness of several days. He had practiced in Cynthiana for fifty-five years. He was a director of the Cynthiana State Bank. Dr. Gudgel graduated from the Medical College of Evansville, Indiana, in 1883, and was a member of the Posey County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ARGAL ERNEST HUBBARD, M.D., medical director of Sunnyside, Marion County tuberculosis sanitarium, died September fifteenth after a long illness. Dr. Hubbard was fifty-seven years old. A specialist in tuberculosis during his entire medical career, Dr. Hubbard became medical director at Sunnyside in June, 1935, after having served as medical director of the Peoria (Illinois) Municipal Sanatorium since the close of the World War. He graduated from the Chicago College of Medicine and Surgery in 1912. Dr. Hubbard was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

News Notes

Dr. B. G. Keeney of Shelbyville has been named chairman of the Shelby County Red Cross Chapter to succeed James Pierce.

Dr. Violet M. Crabbe has opened an office at Wolcott where she will conduct a general practice. Dr. Crabbe has been on the staff of the Home hospital at Lafayette for the past several months.

The Cass County Medical Society passed resolutions of appreciation for the work of Sister Mary Augusta, sister superior of the St. Joseph Hospital in Logansport, who has been transferred to another post.

Mrs. Audrey Travis, wife of Dr. Richard C. Travis of Indianapolis, died August twenty-fourth.

Dr. Robert E. Lyons has resigned as head of the Indiana University chemistry department after forty-nine years of service. Dr. Herman T. Briscoe, a member of the chemistry department faculty since 1922, will succeed Dr. Lyons.

Dr. A. G. Moore has opened an office for general practice at Wheeling, Indiana.

Dr. Harry Rotman has opened an office at Coal-mont where he will conduct a general practice.

Dr. J. M. Kirtley has established an office in the Ben Hur building, Crawfordsville, where he will engage in the general practice of medicine.

Dr. and Mrs. C. B. Southard and family are moving from Cloverdale to Denver, Indiana, where Dr. Southard will continue his practice.

Miss Helen Cooper of Fort Wayne and Dr. Samuel R. Mercer of Fort Wayne were married September third.

Miss Margaret McMeel of Great Falls, Montana, and Dr. Joseph R. Caton of South Bend were married in the chapel of the University of Notre Dame, September third.

Dr. George L. Cole of Flora has opened an office in Frankfort. He will conduct his practice in both places until spring when he plans to close the Flora office.

Dr. R. L. Bender and Dr. C. K. Bender have opened offices in Middlebury where they will conduct a general practice.

Dr. John E. Dalton of Indianapolis has announced the removal of his office to 911 Hume-Mansur Building. Dr. Dalton's practice is limited to dermatology and syphilology.

A symposium on Mental Health will be held by the Section on Medical Sciences of the American Association for the Advancement of Science in Richmond, Virginia, next December.

Dr. George C. Stevens of Indianapolis has been named director of the newly organized Medical Care Division of the State Welfare Department.

The war department has announced the recognition of the rank of major accorded Dr. David H. Sluss of Indianapolis in the Indiana national guard as valid in the national guard of the United States.

The Carroll County Medical Society again is planning to offer immunization for diphtheria, Schick tests, and smallpox vaccination to the people of Carroll county at low rates. The program was started in 1932, and is conducted through the society and the family physicians.

Dr. C. H. McCaskey of Indianapolis will present a paper on "Treatment of Otitic Meningitis Due to Streptococcic Infection by Radical Surgery and Sulfanilamide" at the meeting of the American College of Surgeons in New York City, October 18th.

Dr. Samuel S. Foss of Sellersburg has announced the opening of an office in Jeffersonville. Dr. Foss has taken the office of the late Dr. C. F. C. Hancock in the Pfau Building on Spring Street in Jeffersonville.

The International Physicians' Luncheon Club of New York extends an invitation to physicians who visit New York to be guests at the International Medical Center, 135 East 55th Street, New York, where luncheon is served every Tuesday at one o'clock.

Dr. George Brother, director of the Fourth District Health Unit, with office at Rising Sun, has gone to Johns Hopkins for further study in public health work. His work in the Fourth District Health Unit, with offices at Rising Sun, William D. Hart, of Anderson, who has moved to Rising Sun.

The American Academy of Ophthalmology and Otolaryngology will hold its annual meeting in Washington, D.C., October 9 to 15. Indianapolis members who will attend include Drs. C. P. Clark, B. E. Ellis and C. H. McCaskey who have been assigned instructional hours at the meeting.

The City of Indianapolis has accepted from Edwin L. Patrick, Indianapolis business man, a \$100,000 clinic for the free diagnosis and treatment of cancer. Formal dedication ceremonies on August 18, 1938, gave to the city the clinic which now is in operation. A \$60,000 trust fund has been established to insure future operation of the clinic; \$40,000 of the fund was used in equipping the clinic.

The Indiana State Board of Medical Registration and Examination has announced that 102 persons passed the recent examinations. Dr. A. C. Corcoran, research worker in the Eli Lilly & Company laboratories, had the highest grade; Dr. Rudolph B. Myers, Bloomington, had second high grade, and Dr. Robert Speas, Whiteland, and Dr. Leonard Blickenstaff, Lafontaine, were tied for third.

There are now vacancies for second year medical internes in the United States Public Health Services, particularly at government hospitals located at Lexington, Kentucky, and Fort Worth, Texas, and some of the Federal Penal and Correctional Institutions. Detailed information may be obtained by writing to the Surgeon General, United States Public Health Service, Washington, D.C., or to Dr. F. C. Stewart, medical officer in charge, U. S. Marine Hospital, Evansville, Indiana.

The next examinations for Group B candidates of the American Board of Obstetrics and Gynecology will be held in various cities, November 5, 1938, and on Saturday, February 4, 1939. Application for admission to the written examination scheduled for February 4, 1939, must be filed on or before December 4, 1938. Further information and application blanks may be obtained from Dr.

Paul Titus, secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

The sixty-seventh annual meeting of the American Public Health Association will be held in Kansas City, Missouri, October twenty-fifth to twenty-eighth. An attendance of more than 3,500 is expected. Meeting with the American Public Health Association will be the American School Health Association, the Conference of State Laboratory Directors, the Conference of State Sanitary Engineers, the International Society of Medical Health Officers, the American Association of State Registration Executives, and the Association of Women in Public Health.

The Squibb Institute for Medical Research in New Brunswick, N. J., will be formally dedicated Tuesday, October eleventh. The Institute will be housed in a new laboratory building, just constructed at a cost of \$750,000. The Institute will be dedicated to science, and a staff of scientists has been assembled from leading institutions in the United States and foreign countries. The aim is to create in the medical and biological fields an industry-supported research enterprise comparable to the Bell Telephone and General Electric laboratories in the sphere of physics. Dr. George A. Harrop, formerly associate professor of medicine in Johns Hopkins University and associate physician of Johns Hopkins Hospital, has been appointed director of research in direct charge of the Institute; he will also head the Division of Experimental Medicine.

Plans for an expanded program of education in syphilis control and social hygiene to reach ultimately 35,000,000 young men and women throughout the nation were announced in New York recently by Dr. William F. Snow, chairman of the Administrative Committee of the American Social Hygiene Association. These activities are made possible by an anonymous contribution of \$25,000 and will attempt, in addition to bringing knowledge of the venereal diseases before youth, to provide biological information and guidance in preparing young men and women for stronger and more enduring marriage and family relations. This recent gift brings the total contributed to the fund being raised by the association's National Anti-Syphilis Committee to \$155,015. Dr. Snow estimates that of the nation's 35 million individuals between sixteen and thirty years of age, five million are suffering from syphilis or gonorrhea. The program will get under way by October 1 and is expected to reach its peak of intensity at the time of the Third National Social Hygiene Day on February 1, 1939.

ELEVENTH DISTRICT MEETING

The fall meeting of the Eleventh Indiana Councilor District will be held in Delphi, Wednesday, October nineteenth, with headquarters in the public library.

A golf tournament will be held in the morning and will be in charge of Dr. Hubert Gros. Dr. Eva Kennedy of Camden is in charge of women's entertainment.

The afternoon program will be held at the public library and will begin at two o'clock.

The program will be devoted to "Traffic Emergencies" with the following speakers:

1. Traffic Emergencies as Seen by the Surgeon. E. Vernon Hahn, M.D., Indianapolis.
2. Legal Phases of Traffic Emergencies. Albert Stump, attorney for the Indiana State Medical Association, Indianapolis.
3. Traffic Emergencies as Seen by the General Practitioner. E. B. Jewell, M.D., Logansport.

The evening banquet and entertainment will be sponsored by the Carroll County Medical Society.

Dr. George Beamer of Delphi is chairman of the committee on arrangements for the meeting.

AN AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY TO BE HELD IN 1939

The American Congress on Obstetrics and Gynecology, the first American congress devoted to a consideration of medical, nursing and other problems associated with human reproduction, will be held in Cleveland, Ohio, September 11 to 15, 1939. The promotion and sponsorship of the Congress has been delegated to the American Committee on Maternal Welfare, Inc., which includes the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, the American College of Surgeons, the American Gynecological Society, the American Hospital Association, the American Nurses Association, the American Medical Association Section on Obstetrics and Gynecology, the American Public Health Association, the U. S. Children's Bureau, and twelve other kindred organizations.

The purpose of the Congress is to afford opportunities for discussing and publicizing the problems associated with human reproduction and the health of women and new born babies. The congress will include participation not only by medical groups but by those devoted to nursing, public health, and institutional administration. The program will provide morning, afternoon and evening sessions, details of which will be announced later.

National, sectional, and local specialist societies have approved the Congress and have made contributions for its support. It is desired that a wider representation be secured through the medium of contributing memberships, the cost of which has been placed at five dollars. Application may be made at the office of the Congress, 650 Rush Street, Chicago.

Societies— Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

August 7, 1938.

Meeting called to order at 10:30 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Dinner guests: E. O. Asher, M.D., chairman, State Board of Health Liaison Committee to Deal with Social Security Act; H. B. Mettel, M.D., director, Bureau of Maternal and Child Health, State Board of Health; N. M. Beatty, M.D., chairman, Legislative Committee.

The monthly statements of Receipts and Expenditures for June and July for the Association committees and THE JOURNAL were approved.

Reports of the Budget for June and July for the Association committees and THE JOURNAL were made.

Membership Report

Number of members on August 6, 1938—3025
(62 hon. mems.)
Number of members on August 6, 1937—2918
Gain over last year—107
Number of members Dec. 31, 1937—2982
(40 hon. mems.)

Treasurer's Office

Dr. Weyerbacher reported that there was about \$3,000 in surplus funds to be invested in order to reduce the amount in the general checking account fund.

1938 Annual Session at Indianapolis

Commercial exhibit. 38 spaces sold; 4 to be sold.

Scientific exhibit. Dr. Culbertson visited the Murat Temple with the executive secretary and approved the facilities and the placing of the scientific exhibit.

Banquet speakers. Dr. George E. Vincent will speak on "The Pain of Thinking," and Dr. Rock Sleyster, president-elect of the American Medical Association, has accepted an invitation to attend the meeting.

Suggested exhibit on physicians' hobbies is out. The local arrangements committee for the state meeting recommended that no attempt be made this year to have an exhibit of physicians' hobbies due to the fact that no special time is available on the program for special attention to such an exhibit and as no space is available where the exhibits can be under lock and key during the off-hours of the convention.

Badges. The Committee made final selection of badges.

Presentation of certificate for Dr. Clark. Dr. William N. Wishard, Sr., was selected to present this certificate.

Seating arrangement at speakers' table for the banquet were made.

Upon the motion of Dr. Austin the Governor and Lieutenant-Governor of Indiana and the mayor of Indianapolis are to be invited to attend the banquet.

Meeting places for Executive Committee, Council, and delegates.

- (a) Executive Committee, Monday night, October 3, 6:30, Columbia Club.
- (b) Council, Tuesday, October 4, luncheon meeting, Indianapolis Athletic Club.
- (c) House of Delegates, breakfast meeting, Thursday, October 6, Indianapolis Athletic Club.

Candid camera pictures at meeting. Dr. William N. Wishard, Jr., was named official candid camera photographer for the convention.

Pamphlets on syphilis to be distributed at state meeting. Two pamphlets on syphilis entitled, "The diagnosis of Syphilis by the General Practitioner" and "Management of Syphilis in General Practice," by Joseph Earle Moore, M.D., were approved by the Committee for distribution at the state meeting. The State Board of Health will pay for the printing of enough of these pamphlets for distribution to each member who attends the convention.

Postgraduate

Budget ----- \$300.00
Expense to date----- 119.75

Report made that a request for a statement of expenses had been made of Mr. J. B. H. Martin, administrator at the Indiana University School of Medicine.

Southern Indiana postgraduate meeting at French Lick, to be held September 7 and 8. Program outlined in August JOURNAL. French Lick Springs Hotel asked to send out individual invitations to all physicians in southern Indiana. Newspaper copy to be prepared on the meeting.

Legislative, Legal and Social Security Matters

National: Covered under sickness insurance and socialized medicine.

Local:

The special session of the state legislature adjourned without taking any action affecting the medical profession directly.

Notation made that the unemployment insurance fund had been built up to \$28,000,000 in two years. The Committee felt that someone might propose payments for sickness insurance from this fund.

Doctor's Title Act in Oregon. Mr. Stump is to make a final report at the next meeting of the Executive Committee upon the feasibility of attempting to pass such an act.

Complaint in regard to examination of beauty culturists. Letter received from a physician complaining that the beauty board has not allowed his laboratory to make any examinations of beauty culturists while laboratories conducted by non-medical men are allowed to do this work. The Committee instructed the secretary to forward this letter to the beauticians' board.

Sickness Insurance and Socialized Medicine

Movement to socialize medicine. Various clippings concerning the meetings and actions that have been taken in regard to the socialization of medicine brought to the attention of the Committee. Among these recent happenings is the suit filed by the attorney-general's office against the American Medical Association; the National Health Conference at Washington, and the medical insurance study committee meeting that was held in Chicago in connection with the platform committee meeting of the Republican party.

Telegram received from Dr. Henry Cook, president of the Michigan State Medical Society, suggesting a joint meeting of the officers of the Indiana State Medical Association with the officers of the Michigan State Medical Society to discuss the entire situation.

Resolution of the Vanderburgh County Medical Society authorizing the appointment of a group to study the implications of the Washington conference and the attorney-general's action brought to the attention of the Committee. The Committee decided to call a special joint meeting of the Council, past presidents, and the Executive Committee to be held in Indianapolis on Wednesday, August 10.

Complaint received from a physician in regard to the care of WPA workers in veterans' hospitals brought to the attention of the Committee. From the letter

received from Dr. Woodward of the A.M.A. it is evident that sending WPA workers to government hospitals instead of having them cared for by their own local family physician is a national and not a local ruling of the Works Progress Administration.

A memorandum from Dr. E. E. Padgett, past president of the State Association suggesting a plan for combatting socialized medicine was brought to the attention of the Committee. This plan is an amplification of the present system used in Indiana whereby indigent patients are taken care of at the University Hospitals. According to Dr. Padgett this plan could be amplified so that such work could be done in all local county hospitals.

Report on health insurance meeting at Chicago. Dr. Norman Beatty made a report on the meeting held at Chicago under the auspices of the Republican platform committee to discuss sickness insurance. He reported that he felt that the Republican platform would not recommend a federal system of compulsory health insurance.

Conference on Rural Medicine, October 7 and 8. Announcement made of the conference on rural medicine to be held at Cooperstown, New York, on October 7 and 8.

Kate Smith's remarks on socialized medicine. Correspondence with the Columbia Broadcasting System in regard to Kate Smith's remarks favoring socialized medicine brought to the attention of the Committee. The Columbia Broadcasting System contended that it was giving both sides of the story and that on a previous broadcast it had the side of organized medicine presented by Dr. Irvin Abell.

Manuscript against socialized medicine. Albert Stump, attorney for the Association, has prepared a manuscript against socialized medicine. Dr. Baker volunteered to attempt to obtain a student to do research necessary for the completion of the manuscript.

Hawaii Medical Service Association plan. This plan, which is practically one of health and accident insurance such as is conducted by commercial companies in the United States, was brought to the attention of the Committee for study.

Organization Matters

Recognition of Regional Fracture Committee of American College of Surgeons. Dr. Baker stated that he had written to Dr. Ulmer of Terre Haute in regard to this and had received no answer as yet from Dr. Ulmer.

Expert Testimony Committee. This committee is to be appointed by Dr. Baker.

Amendment to By-Laws clarifying membership and location phase. Albert Stump, attorney for the Association, is to prepare a suggested amendment and have it carried in the annual report of the Committee, to be brought up for action at the next meeting of the House of Delegates.

Medical Economics

Dr. Austin spoke of the fact that in a recent survey made by a magazine in regard to the number of physicians who favor socialization of medicine, only 9% answered in the affirmative in Indiana. In some of the other states the percentage ran well over 50%.

Venereal Disease Control

Dr. Verne K. Harvey, secretary of the State Board of Health, announced that Dr. Wendell C. Kelly has been placed in charge of the venereal disease program of the State Board of Health.

Medical Care for All the People Survey

New forms, IF, No. 9 and summary sheets, sent to county medical society secretaries.

Survey completed in Vanderburgh county and the

report is to be printed in the October issue of THE JOURNAL.

State Board of Health

Dr. E. O. Asher, chairman of the State Board of Health Liaison Committee to Deal with Social Security Act, and Dr. Howard Mettel, director of the Bureau of Maternal and Child Health of the State Board of Health, made a report to the Executive Committee in regard to the proposed plan of having men who are doing obstetrics come into the University from time to time to take obstetrical courses. Upon the motion of Dr. VanBuskirk, seconded by Dr. McCaskey, the plan of the Liaison Committee for this type of postgraduate work was approved by the Executive Committee. It was suggested that an article outlining the entire plan appear in THE JOURNAL and that this article be submitted to the next meeting of the Committee.

Hospitalization

Licensing of Maternity and Small Nursing Homes. Under the state law the State Board of Charities, which was absorbed by the Department of Public Welfare, formerly licensed maternity and small nursing homes. A letter was received from the director of the Children's Division of the Department of Public Welfare in regard to the program that is to be undertaken in licensing these maternity hospitals and nursing homes. This letter asked certain questions in regard to medical standards for these homes and the Executive Committee referred the matter to the Liaison Committee of the Bureau of Maternal and Child Health of the State Board of Health.

Diphtheria Immunization Campaign

Correspondence between Dr. Verne Harvey, secretary of the State Board of Health and Dr. H. J. Norton, chairman of the Diphtheria Immunization Committee of the American Legion, brought to the attention of the Committee. The Committee felt that it would be well for Dr. Harvey, Dr. Norton and Milt D. Campbell, assistant to the director of the National Child Welfare Division of the American Legion, to have a meeting and discuss this matter further.

Crippled Children

Letter received from Dr. Samuel Kennedy, councilor of the Sixth District, stating that a meeting had been held which was attended by the presidents and secretaries of each county medical society in his district at which Dr. Oliver Greer explained the work of the Crippled Children's Bureau. The report is that this was a successful meeting and that as a result of that meeting the profession is better acquainted with the program and purposes of the Crippled Children's Bureau.

The Journal

The Committee authorized free space for the National Tuberculosis Association and Red Cross advertisements, donating a full page each for these ads if that fits in with the make-up of THE JOURNAL. However, if only a half page is used for one organization, the same space should be given to the other organization.

Letter received from H. J. Zimmer, M.D., Mishawaka, suggesting certain changes in THE JOURNAL make-up. The Committee felt that Dr. Zimmer's recommendations in regard to installing a punch system for filing THE JOURNAL was very much worthwhile but is impractical at the present time. The Committee felt that if any physicians want to do this they can buy their own punches and prepare THE JOURNAL according to their own desires. The Committee felt that the advertising sections of THE JOURNAL in their own way are as valuable as the scientific and editorial sections and that a change of make-up in THE JOURNAL which would place the advertising sections in a less advantageous

position would be unfair to the advertisers upon whom THE JOURNAL depends a great deal for its revenue.

Medical Publishers Association asks representation from THE JOURNAL. This organization is to be newly formed, to be composed of publishers of medical and allied journals. As representatives not only of journals of the medical profession but also of "The Journal of Osteopathy," "The Osteopathic Profession," and throw-away journals are to be invited to join the organization, the Committee felt that this matter should be referred to the American Medical Association.

Exchange with the Australian Journal of Experimental Biology and Medical Science published by the University of Adelaide. The Committee approved this exchange if such an exchange is thought worthwhile by the editor and the editorial board.

Medical Defense

Complaint received that some companies writing medical defense insurance were limiting their insurance policies brought to the attention of the Committee. The Committee turned this correspondence over to Albert Stump, attorney for the Association, suggesting that he make an investigation into this question and that he prepare an article for THE JOURNAL in regard to it.

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

April 15, 1938

Meeting called to order at 4:00 p. m.

Present: William N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Release, "May Day," approved for publication in Monday, April 25, papers.

Reports on medical meetings:

March 16—Decatur County Medical Society, Greensburg. "Sulfanilamide." (16 present.)

March 16—Parke-Vermillion County Medical Society, Clinton. "Pneumonia." (14 present.)

March 21—Greensburg Rotary Club, Greensburg. "Syphilis Control." (32 present.)

April 7—Fountain-Warren County Medical Society, Kingman. "Tuberculosis." (50 present.)

Requests for speakers:

April 20—Parke-Vermillion County Medical Society, Clinton. Speaker desired to talk on "Diphtheria."

April 26—Indiana Congress of Parents and Teachers, Claypool Hotel, Indianapolis. "A General Program for Immediate Action in Preventive Medicine."

Speaker obtained.

Letter received from the president of the Woman's Auxiliary asking the Bureau of Publicity to set a date on which the Woman's Auxiliary may meet with the Bureau. The Bureau suggested that this meeting be held on Monday, May 9, at the headquarters office and the secretary was instructed to write the head of the Auxiliary to see if this date is satisfactory with her.

Bulletins from the Public Relations Bureau of the Medical Society of New York assigned to one member of the Bureau of Publicity who will make a report upon these bulletins at the next meeting of the Bureau.

The following editorial which appeared in The Indianapolis Times was commended by the Bureau of Publicity:

"Three years ago a new method of treating cancer was announced in the Journal of the Canadian Medical Association. The Scripps-Howard Newspapers at once sent their science editor, David Dietz, to talk with the inventors of the treatment. Mr. Dietz was unimpressed by the new discovery and so reported.

"Today, five investigations by as many Government agencies are under way as the result of the deaths of 11 patients in Orlando, Fla., after receiving this treatment.

"Mr. Dietz, three years ago, expressed the opinion that the new method needed much more investigation than it had been given, that further experiments were advisable before the treatment of human patients was carried on. During the last three years he has frequently emphasized that surgery, x-rays and radium were the only proved treatments for cancer.

"Early diagnosis and treatment by one or a combination of the accepted methods, at the hands of a reputable physician, constitute the only hope for the victim of cancer."

The secretary was instructed to write the editor of the Times complimenting the Times upon the editorial.

One member of the Bureau of Publicity who was assigned to prepare the exhibit upon preventive medicine which is to be sponsored by the Bureau of Publicity at the coming meeting of the American Medical Association made a report to the Bureau upon the progress made in preparing this exhibit. A sketch of the exhibit is to be available at a future meeting of the Bureau. Contact also is to be made with the delegates to the American Medical Association in order that a resolution in regard to the Indiana program for preventive medicine may be prepared to be presented to the House of Delegates of the American Medical Association.

Suggestion was made that a map showing district societies be made to appear in the copy of the newly approved Constitution and By-Laws of the State Association.

May 9, 1938

Meeting called to order at 4:00 p. m.

Present: F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Members of the Woman's Auxiliary: Mrs. Fred B. Wishard, president; Mrs. George Bowman, and Mrs. W. E. Tinney.

As this was a special meeting of the members of the Bureau of Publicity with representatives from the Woman's Auxiliary to the Indiana State Medical Association, the usual business of the Bureau was waived.

The following letter from Mrs. Fred B. Wishard, president of the Woman's Auxiliary, was read:

"In reply to your letter of the 23rd inst. as to the scope of the work of the Auxiliary and what I desire to be included in the official endorsement from the Bureau, I have this to say. Of the ten already organized units in the state, all are doing or want to do philanthropic work of some sort. Some units are working for hospitals, sewing and making supplies, buying hospital equipment, etc. One unit has a student loan fund for the use of physicians' children needing financial help to complete their medical education. Three units have placed Hygeia in schools and hospitals. Another maintains a circulating library in its local hospital and has recently sponsored and organized a hospital guild. Another unit has availed itself of the services of a local radio station for broadcasting programs prepared by local physicians, while another unit assisted in organizing its district for the national organization for the control of cancer. Practically all the units have presented health and educational programs.

"I should like sometime to see:

1. The organization of a Woman's Auxiliary in each county, where at all possible.
2. Every Auxiliary member become a club woman
 - (a) belong at least to one club other than the Auxiliary
 - (b) attend meetings regularly
 - (c) place speakers on health programs wherever possible

3. Every Auxiliary member inform herself on the subject of state medicine.
4. The Woman's Auxiliary assist the medical society in its program of public health education—
 - (a) by requesting radio stations to carry the American Medical Association program;
 - (b) by developing interest in social hygiene education, cancer, tuberculosis, syphilis, etc.

"My desire for the further organization of the State Auxiliary is not to rush in and at once organize each county but rather to be allowed to present the work of the Auxiliary before each county medical society so that the physicians may know of the work that is being done by the Auxiliary. As it is now, our Auxiliary organizing work goes in a vicious circle. We must have an invitation from the physicians of any county to organize an Auxiliary. It is surprising how few physicians throughout the state know that there is such an organization as a Woman's Auxiliary. We cannot ask for an invitation to organize a county and we are not asked in most cases to organize the Auxiliary because the physicians are uninformed concerning the work of the Auxiliary. As I stated in a previous letter, we feel that official recognition would give us tremendous impetus."

This was followed by a general discussion in regard to this question and Mrs. Wishard was authorized to prepare a statement which was to be submitted to the members of the Bureau of Publicity concerning the Auxiliary. After this statement is approved by the Bureau of Publicity it may be used as a basis for a resolution to be presented to the House of Delegates.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

The first meeting of the Woman's Auxiliary to the Indiana State Medical Association was held in Gary, September 26, 1938.

After ten years, it is worth while reprinting a part of the message of our first president, Mrs. F. W. Cregor.

"Our organization is a peculiar one, wholly an altruistic, idealistic one; this is not a free lance club, wherein we are mistresses of our own development, but a profession. We do not organize until we are approved by our local society; even then we prefer an invitation. We are banding together to promote acquaintance and friendship among physicians' families so that fellowship and unity may increase.

"I would recommend the reading of the editorials in our state JOURNAL; accept places on health committees in your various clubs; encourage use of health films; invite physicians to address us on current medical issues and acquire some knowledge of preventative medicine."

This first president's address which was printed in pamphlet form ten years ago is worthy to be reprinted in full as it embodies every project suggested since that time. Mrs. Cregor was indeed a

president with a clear vision of the future of the auxiliaries' activities.

Greetings from Mrs. William S. Tomlin on our tenth anniversary: "Your invitation to contribute a message to the Woman's Auxiliary as a past president is much appreciated and I take this opportunity to extend greetings and congratulations to the splendid women who have been keeping the pages together.

"The first decade is now past and the record stands, and there is no better wish that may be offered the Auxiliary and for those ever welcome recruits than that they may know the belief, the consecration and the joy that has always possessed and will always possess the pioneers of the Woman's Auxiliary to the Indiana State Medical Association."

A list of state presidents of the Auxiliary to the present time is as follows:

- 1927-1928—Mrs. Frank W. Cregor
- 1928-1929—Mrs. W. R. Davidson
- 1929-1930—Mrs. M. A. Austin
- 1930-1931—Mrs. William S. Tomlin
- 1931-1932—Mrs. L. E. Fritsch
- 1932-1933—Mrs. R. O. McAlexander
Mrs. Charles F. Voyles
- 1933-1934—Mrs. C. N. Trent
- 1934-1935—Mrs. R. L. Compton
- 1935-1936—Mrs. Marcus Ravdin
- 1936-1937—Mrs. Edmund D. Clark
- 1937-1938—Mrs. Fred B. Wishard
- 1938-1939—Mrs. Maurice B. VanCleave

(Mrs. VanCleave will take office at the time of the meeting in Indianapolis)

COUNTY OFFICERS — 1938-1939

DuBois County: President, Mrs. H. C. Knapp; vice-president, Mrs. Chester A. Hicks; secretary-treasurer, Mrs. Harvey K. Stork.

Vanderburgh County: President, Mrs. Joe H. McCool; vice-president, Mrs. Charles F. Willis; recording secretary, Mrs. Melvin Durkee; corresponding secretary, Mrs. Charles F. Leich; treasurer, Mrs. Bleeker Knapp.

Orange County: President, Mrs. George R. Dillinger; vice-president, Mrs. R. E. Baker; secretary-treasurer, Mrs. C. E. Boyd.

Watch for the first issue of the "Hoosier News-Letter." This is my last article of the year for THE JOURNAL. The Press and Publicity chairman desires to express her sincere appreciation to all who have rendered assistance in this work; it has indeed been a real privilege, and the gracious response has more than compensated for the effort involved.

Mrs. W. F. Hughes,
Press and Publicity Chairman.

LOCAL SOCIETY REPORTS

CARROLL COUNTY MEDICAL SOCIETY met at Camden, at the home of the Drs. Kennedy, September eighth. Dr. George Bond of Indianapolis was the principal speaker, his subject being "Coronary Artery Disease."

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY held a business meeting at the Aurora Public Library, August eighteenth.

* * *

ELKHART COUNTY MEDICAL SOCIETY members held their first fall meeting, September ninth, in Elkhart. Dr. Herman L. Kretschmer of Chicago was the guest speaker. Dr. Kretschmer talked on "Chronic Prostatitis in General Practice."

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met at the Chamber of Commerce Building, September sixth, with forty-nine in attendance. Speakers were Drs. A. N. Ferguson, L. T. Rawles, and D. F. Cameron. Dr. Cameron showed moving pictures of a vacation trip.

* * *

GIBSON COUNTY MEDICAL SOCIETY held a meeting at the Emerson Hotel, Princeton, September twelfth. The guest speaker was Dr. Pierce MacKenzie of Evansville who spoke on "The Three Stages of Labor" with special reference to pain-relieving preparations. Attendance numbered twenty-six.

* * *

JAY COUNTY MEDICAL SOCIETY members met September second at the Portland Country Club. Dr. Fred Maurer of Lima, Ohio, talked on "Heart Disease; Causes and Treatment."

* * *

LAKE COUNTY MEDICAL SOCIETY members met at Phil Smidt's Fish House at Roby, Indiana, September eighth, for their first fall meeting. Mr. Mac Cahal, pioneer executive secretary of the Sedgwick County Medical Society (Kansas), was the principal speaker. The meeting was devoted to a discussion of plans for the employment of a lay executive secretary. A special investigating committee was appointed to study the matter and to make a report at the meeting on October thirteenth, after which a final vote will be taken on the matter.

* * *

MADISON COUNTY MEDICAL SOCIETY held its first fall meeting September nineteenth at St. John's Hospital in Anderson. Principal speaker was Dr. Norman M. Beatty of Indianapolis. His subject was "The Trend of the Times."

* * *

MARSHALL COUNTY MEDICAL SOCIETY met at Plymouth, September sixth, for a noon luncheon meeting. Dr. C. J. Langenbahn of South Bend presented a paper on "Chronic Gonorrhea in the Male." Attendance numbered sixteen.

* * *

MUNCIE ACADEMY OF MEDICINE members heard Dr. E. Perry McCullagh of Cleveland, who was the principal speaker at the dinner meeting held on Tuesday, September thirteenth, in the Hotel Roberts. Dr. McCullagh's subject was "Some Common Problems in Endocrine Therapy."

Dr. Morris Fishbein of Chicago is scheduled to be the guest speaker at the November eighth meeting of the Academy.

* * *

NOBLE COUNTY MEDICAL SOCIETY held a meeting at Kendallville, July twenty-sixth. Dr. W. F. Carver of Albion talked on "The Evolution of the Hospital." Attendance numbered sixteen. Drs. A. J. Sparks and S. R. Mercer of Fort Wayne, officers of the Twelfth District Society, were guests.

* * *

OWEN COUNTY MEDICAL SOCIETY members heard Dr. Thurman B. Rice of Indianapolis talk on "Mental Hygiene" at the luncheon meeting of the society held September eighth.

* * *

PERRY COUNTY MEDICAL SOCIETY members and members of the Perry County Nursing Council held a joint meeting, August tenth, at Tell City. Dr. Howard Mettel of Indianapolis, chief of the Maternal and Child Welfare Department of the Indiana State Board of Health, was the principal speaker.

* * *

RANDOLPH COUNTY MEDICAL SOCIETY members met at Winchester, September 12th. Principal speaker was Dr. L. G. Montgomery of Muncie.

* * *

SPENCER COUNTY MEDICAL SOCIETY members met August sixteenth in the office of Dr. J. C. Glackman of Rockport for a routine business meeting.

* * *

SHELBY COUNTY MEDICAL SOCIETY members and their families enjoyed a picnic, an annual event with the society, at the summer cottage of Dr. and Mrs. Paul R. Tindall on Flat Rock river.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at Lincoln Lodge and at St. Elizabeth's Hospital in Lafayette, September thirteenth. Dean W. D. Gatch of Indianapolis, conducted a clinic in the afternoon, and following the dinner meeting in the evening, Dr. Gatch talked on "Management of Wounds." Forty attended the clinic in the afternoon, and sixty attended the evening meeting.

* * *

VANDEBURGH COUNTY MEDICAL SOCIETY met in Evansville, August fourth, for a business meeting, with fifty-five in attendance. The society has four new members: Drs. Victor Huggins, William W. Wood, Ray N. Adler, and Clarence Reich. The society endorsed the showing of the film "Birth of a Baby" at local theaters for persons over sixteen years of age.

* * *

WABASH COUNTY MEDICAL SOCIETY members held a meeting at the county hospital in Wabash, September seventh. Dr. Lynn Elston of Fort Wayne was guest speaker.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY met September sixteenth in Richmond. Dr. R. W. McNealy of Chicago talked on "Some Phases of Gall Bladder Disease."

* * *

WHITLEY COUNTY MEDICAL SOCIETY held a meeting at Columbia City, September thirteenth. Dr. Wayne Glock of Fort Wayne discussed "Backache."

BOOKS

BOOKS RECEIVED

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A.M., M.D., professor of obstetrics and gynecology, emeritus, University of Chicago; consultant in obstetrics, Chicago Lying-In Hospital and Dispensary, Consultant in Obstetrics, Chicago Maternity Center. Seventh edition, entirely reset. 1211 pages with 1277 illustrations on 985 figures, 271 of them in colors. W. B. Saunders Company, Philadelphia and London, 1938. Cloth. Price \$12.

* * *

SURGICAL PATHOLOGY. By William Boyd, M.D., LL.D., M.R.C.P.Ed., F.R.C.P.Lond., Professor of Pathology, University of Toronto. Fourth edition, thoroughly revised. 886 pages with 476 illustrations and 15 colored plates. Cloth. Price \$10. W. B. Saunders Company, Philadelphia and London, 1938.

* * *

THE SPECTACLE OF A MAN. By John Coignard. A story of human behavior. 252 pages. Cloth. Price \$2.50. Jefferson House, Inc., New York, 1937.

* * *

INTERNATIONAL CLINICS. Volume III, New Series 1 (old 48th). Edited by George Morris Piersol, M.D. 341 pages. Illustrated. Cloth. J. B. Lippincott Co., Philadelphia, Montreal, New York, 1938.

* * *

OUTLINE OF ROENTGEN DIAGNOSIS. By Dr. Leo G. Rigler, Professor of Radiology, University of Minnesota. This book is made up in two formats. One in which the 254 illustrations and x-rays are grouped in atlas fashion with numerous references and cross references in the text to the atlas section, and priced at \$6.50. The other is a student edition, from which the atlas section has been omitted, and priced at \$3.00. J. B. Lippincott Company, Philadelphia, 1938.

* * *

ANUS, RECTUM, SIGMOID COLON. By Harry Ellicott Bacon, B.S., M.D., F.A.C.S., F.A.P.S., assistant professor of proctology, Temple University School of Medicine. Introduction by W. Wayne Babcock, A.M., M.D., LL.D., and foreword by J. P. Lockhart-Mumery, M.A., M.B., F.R.C.S. 855 pages with 487 illustrations in the text, mostly original, by William Brown McNett. Cloth. Price \$8.50. J. B. Lippincott Company, Philadelphia, 1938.

* * *

YOU CAN SLEEP WELL. The ABC's of Restful Sleep for Average Person. By Edmund Jacobson, M.D. Cloth. 263 pages. Price \$2.00. Whittlesey House, New York and London, 1938.

* * *

ENDOCRINE THERAPY IN GENERAL PRACTICE. By Elmer L. Sevringhaus, M.D., F.A.C.P., professor of medicine, University of Wisconsin, Madison, Wisconsin. 192 pages, illustrated. Cloth. Price \$2.75. The Year Book Publishers, Inc., Chicago, 1938.

* * *

THE 1938 YEAR BOOK OF PHYSICAL THERAPY. Edited by Richard Kovacs, M.D., clinical professor and director of physical therapy, New York Polyclinic Medical School and Hospital. 480 pages, illustrated. Cloth. Price \$2.50. Year Book Publishers, Inc., Chicago, 1938.

BOOK REVIEWS

SURGICAL ANATOMY OF THE HEAD AND NECK. By John Finch Barnhill, M.D., F.A.C.S., formerly professor of Otolaryngology, Indiana University School of Medicine; emeritus professor of Surgery of the Head and Neck. Formerly chief of the Department of Head and Neck Surgery in the Indiana University Hospitals; honorary professor of anatomy, University of Southern California School of Medicine. Introduction by Paul S. McKibben, professor of anatomy in the School of Medicine, University of Southern California. 921 pages with 431 illustrations. Cloth. Price \$20.00. William Wood and Company, Baltimore, 1937.

This book already has reached wide distribution through the students and colleagues of Dr. Barnhill. It has received unreserved praise in all sections of the country, and as Dr. Barnhill is a Hoosier and considers Indiana his home, so do Indiana physicians count him as one of their number and are proud of his work in preparing and publishing a book that will fill a need long felt among his students—the opportunity to have at hand the lessons that he has for many years given to them through his annual postgraduate courses. For many years, Dr. Barnhill's courses of postgraduate instruction in anatomy and surgery of the head and neck, given at the Indiana University School of Medicine, attracted specialists from all over the United States each year.

In his book as in his lectures, the author emphasizes the importance of an accurate knowledge of the anatomy of the head and neck for the otolaryngologist, the oral surgeon, the dentist, and the ophthalmologist. Throughout the book is reflected his intimate style of teaching. It is thoroughly practical and the repetitions, for which Dr. Barnhill apologizes, serve only to drive home the points he considers most important.

The illustrations in the book are characteristic in that many of them are original with the author and were made from actual anatomical dissections.

The work actually represents Dr. Barnhill's postgraduate course in the surgical anatomy of the head and neck. All those who were students under Dr. Barnhill undoubtedly will want copies of the book; those specialists who did not have the privilege of attending his classes can make up the deficiency by studying his book. It is so beautifully prepared that it will be a treasured addition to any medical library.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES Monthly Report, August 1938

	Aug. 1938	July 1938	June 1938	Aug. 1937	Aug. 1936
<i>Diseases</i>					
Tuberculosis	174	207	159	181	140
Chickenpox	9	28	150	16	9
Measles	23	109	898	72	8
Scarlet Fever	74	99	190	82	68
Smallpox	14	79	105	15	1
Typhoid Fever	62	53	23	26	43
Whooping Cough	40	69	72	131	86
Diphtheria	26	39	38	24	38
Influenza	14	33	13	13	20
Pneumonia	23	44	53	35	29
Mumps	8	14	52	9	16
Polio-myelitis	1	3	0	34	4
Meningitis	3	3	3	5	7
Malaria	1	0	0	4	2
Rocky Mountain Spotted Fever	3	2	0	1	0

IF I COULD WRITE!

If I could write like Maynard Austin,
I'd hie me off to dear old Boston
And there become a Harvard "prof"
And let the darned old Hoosiers scoff.

If I could write like Herman Baker,
Reverently I'd thank my Maker,
For then I'd write with erudition
And be a crafty politician.

If I could write like Thurman Rice,
Of Hoosier fame I'd claim my slice.
The efforts aren't literary
But are they profitable? Very!

If I could write like Willis Gatch,
You'd find me pretty hard to match.
My teaching feathers I would preen
And be as cocky as the Dean.

If I could write like E. M. Shanklin,
I'd emulate old Bennie Franklin
And with printing press and pen
High-hat all the lesser men!

If I could write like—oh, the hell!
I know I don't write very well.
I write nothing pornographic—
Nothing that is even laugh-ic—
But I enjoy the others' screed
And thank the Lord that I can read!
—Edgar F. Kiser, M.D.

* * *

(If I could write like Dr. Kiser,
I would be just a little wiser—
I'd pen my verse for "eds" who pay
And gain some profit from my play!)
—Editor.

man is frequently confronted with the problem of learning a new trade. In many cases, he finds himself so incapacitated that he can never again be the breadwinner for his family. There are very few jobs for blind men or near-blind men today when so many able-bodied men are unemployed.

What are the eye hazards in industry? Briefly, they are the accident hazards, the disease hazards and the hazards of excessive eye fatigue. The accident hazards are produced chiefly by flying chips of metal, wood, rock or other hard substances; by falling or thrown tools, raw materials and other large objects; by the splashing of molten metal or injurious chemicals. Disease hazards affecting the eyes with which industry is or should be concerned are the venereal diseases, trachoma, cataract, nystagmus, and the general toxic effects of these poisonous chemicals commonly used in many industries which may affect the eyes as well as other organs. The hazards of excessive fatigue are those due to insufficient light, too much light (glare), flickering light, or too long neglect of eye conditions requiring refraction or other corrective measures.

The accident hazards are, of course, the most serious of all these. How can these hazards be eliminated or their effects counteracted? Briefly, they can be prevented in three ways: (1) by the provision of protective equipment, such as goggles and head masks for individual workmen, screens of metal, wood or canvas between workmen and glass shields or other approved protective devices at the point of operation of emery wheels and other machines, operation of which is attended by flying particles, or splashing of molten metal, or injurious chemicals; (2) by revision of the process of work, by redesign of tools and machines, by rearrangement of machines and other plant equipment; and (3) by rules of work, by supervision, training and education in safe practices of workmen and foremen.

When an arm or a leg is lost as the result of an accident, it can often be replaced by an artificial limb which can serve as a helpful substitute; but when the sight of an eye is destroyed by accident, the loss is irreplaceable. YOU CANNOT SEE A THING THROUGH AN ARTIFICIAL EYE.—Rocky Mountain Medical Journal, August 1938, p. 654.

REFER TO THE OPHTHALMOLOGIST

Good eyesight is such an absolute necessity for human existence that the utmost care should be exercised to preserve it. Most cases of defective eyesight are first observed by the general practitioner. Successful treatment of the patient and relief of defective eyesight will depend very largely on the advice which he gives the patient for subsequent special treatment. If he merely advises "have your eyes examined," without specifying by whom, irreparable damage may result in consequence of treatment by some incompetent "eye doctor."

This is not intended as a tirade against the optometrist. If the patient has merely a muscular defect which can be remedied by refraction, all may be well with him, but too often the optometrist is either ignorant of constitutional disease, or passes it as immaterial. An English authority states that thirty-five per cent of cases recorded by ophthalmologists required attention in addition to providing glasses, while an average of only three per cent seen by optometrists were referred to ophthalmologists for further treatment. It is claimed that approximately one-third of patients treated should be thus referred.

While it is stated that schools of optometry include courses in the pathology of the eye and in ocular anomalies, the inevitable lack of experience in treatment of constitutional diseases, and of relating to them abnormalities of the eye, render such courses of treatment insufficient for successfully treating organic conditions. An ophthalmologist of extensive experience in a large city reports frequent occurrence of glaucoma, optic atrophy, retinal hemorrhages and other conditions which

ABSTRACTS

INDUSTRIAL EYE HAZARDS

It is estimated that the industries of America would save \$50,000,000 a year if known methods of eliminating eye accident hazards were conscientiously observed by employers and employees. Aside from the humanitarian aspect, it is cheaper to prevent accidents than to pay for them. Millions of dollars are paid annually for medical fees and compensation awards to workers who have been totally or partially blinded at their jobs; and millions of dollars are lost through lowered efficiency or lowered earning capacity following blindness or serious impairment of vision.

When an individual worker—man or woman—suffers a serious eye injury, a long chain of costly interruption of work ensues: the injured employee's fellow workers lose time in rendering first aid and getting him to a doctor; other workmen lose time watching the proceedings; the foremen and still other men spend time investigating the circumstances of the accident; the general morale of the department, and sometimes of the entire plant, is impaired; often valuable material is destroyed; follow-up investigations consume time. These are only a few of the indirect costs of eye injuries.

One cannot estimate in terms of dollars, of course, the tragedy that enters every home in which a person has been blinded or has lost part of his sight permanently. Following a destructive eye injury, the work-

have simply had glasses prescribed for them without reference for medical attention, which in their initial stages might have been successfully relieved. A practitioner, who is interested in the sale of glasses as well as the treatment of eye defects, cannot be considered unprejudiced and fitted for the best treatment of the patient. The trained ophthalmologist is the man to be trusted for diagnosis and advice, the prescription for glasses being referred to the optician.—Editorial, *North-west Medicine*, p. 273, Sept. 1938.

SULFANILAMIDE IN TREATMENT OF GONORRHEAL VULVOVAGINITIS

SAMUEL J. HOFFMAN, MAURICE SCHNEIDER, MAURICE L. BLATT and RUSSELL D. HERROLD, Chicago (*Journal A. M. A.*, May 7, 1938), used sulfanilamide in the treatment of gonorrheal vulvovaginitis in twenty-five children varying in age from 3 months to 10 years. Three of this group had chronic infections at the time treatment was instituted, one subacute and the remainder acute infections. No local treatment was used and sulfanilamide was administered orally in fruit juice to all the patients. During the first two days the daily dosage was three-fourths grain (0.05 Gm.) per pound of body weight in four equally divided doses at intervals of six hours. During the next five days the dosage was reduced to three-fourths of this amount, or nine-sixteenths grain (0.04 Gm.) per pound daily. During the second and third weeks the dosage was reduced to three-eighths grain (0.024 Gm.) per pound daily or one-half the initial dosage. At the end of a three weeks course of treatment a rest period of one week was given regardless of the results of smear examinations. All patients whose smears were positive at the end of this rest period were given a second course exactly like the first. A rest period was also given at the end of the second course of treatment, and for the majority of patients who were still infected at the end of the second rest period a third course of treatment was prescribed. A few patients were given a fourth course of treatment after the third rest period. Only seven patients were apparently cured during the first course of treatment, or under a period of twenty-one days (average 17.3 days). By apparent cure we mean a clinical disappearance of all signs of infection from the urethra, vagina, cervix and rectum, as well as negative smears from these areas. During the second course of treatment, nine additional patients were cured between the thirty-fifth and forty-ninth day of treatment, with an average of 42.9 days. Seven of the nine patients not cured were given a third course of treatment, and one of this group was cured during the third course, or in sixty-three days. Four of the six remaining patients not yet cured were given another course of treatment after the usual rest period, and only one of this group of four was cured by such additional treatment. It would seem then that patients who do not respond to two standard courses of treatment have gonococcal infections that are relatively resistant to therapy with sulfanilamide. All patients were kept in the hospital for two weeks after negative smears were obtained, and all those listed as cured had follow-up examinations from one to three months after discharge from the hospital. It was exceptional for patients to have a recurrence if they were clinically and microscopically normal for a period of two weeks after discontinuance of the drug. The children have tolerated sulfanilamide extremely well as compared to adults, in whom reports have indicated a high incidence of reactions.

OUR INSUFFICIENTLY APPRECIATED AMERICAN SPAS AND HEALTH RESORTS

BERNARD FANTUS, Chicago (*Journal A. M. A.*, Jan. 1, 1938), points out that physicians who visit any number of American spas and health resorts will find that there is something radically wrong with nearly every one of them. Manager and owner complain that this

is due to lack of patronage by physicians. But physicians find that few of the resorts are worthy of their patronage. Obviously a vicious circle exists, which, like the vicious circles of disease, can be broken only by a suitable remedy. The ideal climate and the most curative mineral water are of no use to many sick persons unless there can also be secured suitable hotel accommodations and appropriate diet, and these must be available within the financial means at the command of the patient. Physicians are disgusted with the quackish propaganda and practices of most American health resorts. They and their patients know more about the European than the American spas, although as a matter of fact there are in this country practically all the climatic and balneic remedies possessed by any other country in the world. This state of affairs costs Americans many millions of dollars annually. There is not only a net loss to this country but also a financial loss to the patients who are sent abroad for treatment that they could secure much more economically nearer home. American physicians are in great need of information regarding the natural remedial resources of their own states, and it should be—indeed it is—the function of the state governments to secure and disseminate this information. Unfortunately, the state governments, with a few notable exceptions, have largely been derelict in this matter. Mineral water resorts should be health resorts in the truest sense, and health resorts that specialize in the treatment of the diseases for which the natural resources available in the place especially fit them. Unfortunately, there are in this country few institutions of this kind, and these few are not sufficiently well known to the rank and file of the American medical profession. With over 2,000 places in the United States boasting of springs of more or less medicinal value, with the possibility of commanding watering places in almost any climate and at any season, the members of the medical profession are so poorly informed about them that, when need of spa treatment arises, they are more likely to know a suitable European spring than one in this country. This is because textbooks and teachers have more to say about the latter than the former. Distrust and skepticism likewise prevail regarding our mineral spring resorts. With a few notable exceptions this is well merited, for the mendacity of many of the advertisements for mineral springs rivals that of the claims for "patent medicines" in their palmiest days. Unethical practice and quackery abound in and around health resorts. Even the social features and amusements, in many of them, may be objectionable from a therapeutic as well as a moral standpoint. The American Medical Association has struggled successfully with such problems as the improvement of medical education, through its Council on Medical Education and Hospitals, and with the still thornier problem of proprietary medicines, through its Council on Pharmacy and Chemistry. It is helping physicians to a better appreciation of dietetics and of physical therapy by the councils dealing with these matters. It now remains for it to render the same service to this important as well as largely unappreciated national remedial asset.

RIBOFLAVIN: PHYSIOLOGY AND PATHOLOGY

In discussing the physiology and pathology of riboflavin A. G. HOGAN, Columbia, Mo. (*Journal A. M. A.*, April 9, 1938) states that various physiologic roles have been ascribed to riboflavin, but the only one concerning which there is no dispute is that it has some function in the oxidation processes of the cell. Knowledge of these reactions is chiefly due to Warburg and Christian. A study of the properties of the yellow enzyme indicates that the necessity for including riboflavin in the diet is that it is an essential constituent of the yellow oxidation enzyme that cannot be synthesized by the animal cell. It is probable, then, that the vitamin activity of flavin is due to the fact that it forms an ester with

phosphoric acid, and this ester combines with protein to form the yellow oxidation enzyme. Apparently, if no hemin substances are present, all of the cell respiration is accomplished by Warburg's yellow ferment. On the other hand, if iron compounds are present it may be that only a small part of cell respiration is due to this enzyme. The author further discusses riboflavin in tumor tissue, its storage and excretion, the nontoxicity of an overdosage of riboflavin, its intake and amount secreted in milk, the riboflavin content of the eye, its deficiency and relation to cataract, the fact that its deficiency which is not the primary cause of either pellagra or blacktongue but perhaps a complicating one, riboflavin and pernicious anemia, the effect riboflavin and adrenal cortex extract have on growths in rats after it has been inhibited by iodoacetic acid poisoning, and the bearing of riboflavin in avian nutrition.

THE MENOPAUSAL SYNDROME: ONE THOUSAND CONSECUTIVE PATIENTS TREATED WITH ESTROGEN

L. F. HAWKINSON, Brainerd, Minn. (*Journal A.M.A.*, July 30, 1938), points out that owing to the advances made in endocrine therapy, the physician's point of view regarding the treatment of the menopausal syndrome is changing. The tradition that they must be borne is unsound, for the administration of estrogenic preparations is rational and relieves the symptoms in a great majority of cases. Involutional melancholia, pruritus vulvae, senile vaginitis and menopausal hypertension are also frequently relieved by estrogens. The age limits for the syndrome are wide. The symptoms may begin months or years previous to the cessation of menstruation and often persist for years. Treatment should be instituted as soon as symptoms appear. Dosage must be adequate and treatment should be continued until the patient remains free from symptoms without therapy. Higher doses are usually required in patients with artificial menopause. Failure to obtain relief from the majority of the subjective symptoms in uncomplicated menopause is usually due to inadequate dosage. The results in the author's series of 1,000 consecutive patients presenting menopausal symptoms treated with estrogenic substances show that 691 were relieved of the majority of all symptoms, 149 were improved, 109 were doubtful and fifty-one obtained no relief. Results were evaluated by the disappearance of symptoms and by changes in the vaginal smears. The relief of symptoms is usually gradual. Flushes and chills, excitability, irritability, depression and crying, palpitation and insomnia usually disappeared after the seventh or eighth injection of 10,000 international units of estrogen in oil or after from two to three weeks of adequate oral treatment. Sweating, fatigue, lassitude and headaches responded after further administration of estrogenic preparations. Occipitocervical aching, a symptom complained of by 403 patients, proved very amenable to therapy. Migraine is often completely relieved by adequate estrogenic therapy. The administration of estrogen had little effect on the obesity that was present in some patients. So-called menopausal arthritis seldom responds to estrogenic preparations. It is doubtful whether it should be included as a menopausal condition. If treatment is withdrawn after initial relief, symptoms are almost certain to recur within two to six weeks. This stresses the importance of continuous oral therapy with a gradual reduction of dosage until the patient is able to discontinue therapy and remain symptom free. Menopausal symptoms are often persistently troublesome and the average patient must remain on maintenance doses of estrogen for from two to three years. Patients at the menopause who are still menstruating may be more difficult to control, owing to the fact that symptoms are frequently intensified about a week prior to the menstrual period. Also, excessive bleeding may become a problem in these women, and large doses of estrogen

Continued on page xxii

PROFESSIONAL PROTECTION



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Director

Agatha Wilhelm, M.D.
Asst. Director

Continued from page xxi

may increase the already profuse flow. Oral therapy in the form of emmenin is best suited to these cases. No ill effects were seen in any patient even when doses up to 100,000 international units per week were given over a period of many weeks.

PHYSICAL ASPECTS OF ULTRAVIOLET THERAPY

W. W. COBLENTZ, Washington, D. C. (*Journal A.M.A.*, July 30, 1938), emphasizes that the curative properties of a lamp are not necessarily measured by its power to generate an erythema; also that the dosage, whether erythema or suberythema, should be left to the discretion of the physician. However, in order that a lamp may qualify as a therapeutic agent it should emit sufficient ultraviolet to produce an erythema in a reasonable time of exposure (say fifteen minutes or shorter) if the physician desires to give an erythema dose. The physical aspects, the spectral range of antirachitic and erythema reactions and the sources of radiation for use in ultraviolet light therapy are discussed.

HUMAN REQUIREMENT OF VITAMIN D

P. C. JEANS and GENEVIEVE STEARNS, Iowa City (*Journal A.M.A.*, Aug. 20, 1938), define the requirements of vitamin D as those amounts which, with ample intakes of calcium and phosphorus and a diet otherwise adequate, insure sufficient retention of calcium and phosphorus to permit normal growth and mineralization of the skeleton and teeth of infants and children, maintenance of bony and dental structures during adult life and a sufficient supply for mother and infant during pregnancy and lactation. Individual variation in ability to utilize the calcium and phosphorus of the diet without added vitamin D exists at all age periods. A high proportion of infants have poor retention and only a very few retain an ample amount without vitamin D. As the age increases persons in increased proportion are able to retain adequate amounts of these minerals without vitamin D, but at all age periods some persons are found who are not efficient. In defining a standard for the vitamin D requirement it seems desirable to state an amount which will be satisfactory for those who are less efficient. Vitamin D does not decrease the minimum requirement of calcium and phosphorus and this vitamin cannot produce a good retention in a person who is ingesting less than the requirement for these minerals. Vitamin D is not as well utilized on a unit for unit basis from the more concentrated preparations as from those preparations in which it is more widely dispersed. The most desirable concentration has not been determined, but apparently the concentration found in cod liver oil is as effective as any lesser concentration studied. The vitamin D requirement of the full term artificially fed baby is probably between 300 and 400 units a day. Vitamin D is necessary for many and useful for most breast-fed babies. It is tentatively considered that prematurely born babies may require twice as much vitamin D as full term babies during the early period of most rapid growth, after which time the requirement should be the same as for babies born at term. For children between infancy and adolescence a daily allowance of at least 750 cc. of milk together with from 300 to 400 units of vitamin D permits consistently ample retention of calcium and phosphorus. For adolescents a need for vitamin D exists, but insufficient data are available to permit an estimate of the quantity required. It seems probable that from 300 to 400 units a day would be satisfactory. For adults the optimal amount of vitamin D, if a need exists, remains to be determined. It appears strongly advisable to give vitamin D during pregnancy and lactation. The optimal amount is not known. During lactation the requirement may be greater than at any other period of life and a daily dosage of 800 units or more is suggested, together with an abundant intake of calcium and phosphorus.

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PRESIDENT'S ADDRESS*

HERMAN M. BAKER, M.D.

Evansville

I shall not spend any time recounting the accomplishments of the past year. These are dealt with in the various committee reports, particularly that of the Executive Committee. It would have been quite impossible to have achieved any of the multiplicity of results that are reported to you without the loyal and whole-hearted cooperation of all of the officers and the various committees, and I wish to take this opportunity of thanking all of you for your splendid support.

Much of the action taken by this Association at this session will be of far reaching importance—much of it will shatter or maintain traditions and principles that have stood for years. I should like to repeat to you something I said to you in *THE JOURNAL* in February of this year: "The signs of coming change are written large in the world. Now society is face to face with a choice of one of a number of possible directions. Whether or not you actively take part in the decisions, you will live and you will die by their results. The problem is not one of easy solution. Men of easy faiths and loyalties can do no good service—the time calls for thinking men."

So many problems need solution and events are moving so rapidly that I shall not have the opportunity of even mentioning problems that a short time ago would have seemed important but today are faded into the background by overshadowing and larger ones. Changes are so swift that problems of today are changed tomorrow and things written one day have to be rewritten next day in the light of new developments. I shall touch briefly on several problems that seem to me most urgent.

First—HEADQUARTERS OFFICE: Because of the increase in the demand, the urgent need for keeping in touch and personal contact with events, and because of the action of the House of Delegates of

the American Medical Association at its meeting in Chicago two weeks ago and the fact that events are moving with such kaleidoscopic variation from day to day, it will be necessary to employ additional personnel in our headquarters office. This body will have to give serious consideration to ways and means of increasing income. At the moment this would seem to call for an increase in membership dues. One is really astonished when one considers that many physicians pay from twenty-five dollars to several hundred dollars each year for fraternal and club dues and only seven dollars a year to the organization that may mean their very economic existence. With regard to the headquarters office, I would suggest consideration be given to increasing the staff as follows: That Miss Lucille Kribs, so long in the employ of the Association, be given the title of Assistant Secretary; that Miss Hope Toman, so long and so ably in charge of *THE JOURNAL* office, be given the title of Assistant Editor; that one additional stenographer be employed for the headquarters office and one additional all-time assistant for *THE JOURNAL* office. I might remind you at this point that *THE JOURNAL* contributes approximately four thousand dollars a year to the Association income. I would suggest the employment of an associate secretary to begin the necessary training under Mr. Hendricks. This man should be young enough to develop in the work. He should be of a type to be able to do research and detail work in helping to meet the varied and intricate problems arising from day to day.

Second—GRADUATE EDUCATION: You are all well aware, if you have followed what I have written during the year, that I consider graduate education one of the primary obligations of organized medicine. I have given this matter considerable thought and have become convinced that we will get nowhere with this problem until it becomes a major activity of the Association in fact as well

* Presented before the General Meeting of the Indiana State Medical Association at Indianapolis, October 5, 1938.

as in theory. Therefore, I recommend the reorganization of the Committee on Medical Education and Hospitals, increasing the membership to six members—not more than two of whom shall reside in any one Councilor District—the term of service to be staggered so that ultimately each member will serve six years—this committee to be given the whole problem of Education and Hospitals and a budget sufficient that it may do something. I would suggest the employment by this committee of one all-time secretary, who shall be a physician and whose duty it would be to travel about the State, organizing every hospital in the state of Indiana into a center of graduate teaching and organizing graduate courses in the local county societies. The work of this committee should in no way interfere with the under-graduate and graduate work now being done so well by the State University but should supplement this work. I do not believe that we will have touched the problem of graduate education in Indiana until every hospital in the state becomes a teaching center and all of the physicians within its patient radius look to it as their graduate school. Such a program must of necessity be a long range one.

Third—FULL TIME SECRETARIES: In order to emphasize the report of the Special Committee to Study the National Health Situation and the action of the House of Delegates of the American Medical Association, September 17, I would recommend the employment of full time secretaries by the larger societies in the state, and, wherever feasible, the grouping of smaller societies under the direction of an all time executive.

Fourth—UNIFICATION OF MEDICAL PROGRAM IN STATE: Inasmuch as the House of Delegates of the American Medical Association endorsed the principle of subsidy by government to care for the medically needy and also endorsed the principle of hospital and indemnity sickness insurance, it would seem wise to consider some methods of unification of plans in Indiana under the guidance of this Association. This will properly come within the scope of the Permanent Study Group to be recommended by the Special Committee to Study the National Health Situation.

Fifth—ADOPT PRINCIPLES OF COMMITTEE TO STUDY NATIONAL HEALTH SITUATION: I would suggest, after proper consideration by this body, the adoption of the principles worked out by the Special Committee to Study the National Health Situation as applied to our state. This committee has given a great deal of time and thought to studying the facts and has prepared for your consideration a well grounded set of principles.

The above mentioned problems seem to me most urgent ones and should be given consideration at this meeting. This statement is perhaps unique as a presidential address inasmuch as it is simply a short statement of recommendations which are made to you in the light of my experience. I do not believe the present times are times for talk—they are times for action.

I cannot close without expressing to you my deep appreciation of the honor which you have conferred upon me in designating me your President—the most signal honor in your power to bestow. I have tried to carry out what I conceived to be your wishes. I hope that I have succeeded in doing so.

THE TUBERCULOSIS ASSOCIATION AND THE PROBLEM OF EARLY DIAGNOSIS

MURRAY A. AUERBACH,

EXECUTIVE SECRETARY, INDIANA TUBERCULOSIS ASSOCIATION

Indianapolis

Back in 1903, at a meeting of the American Medical Association, a committee was appointed to study the tuberculosis problem from a community standpoint. The following year the committee suggested the formation of the National Association for the Study and Prevention of Tuberculosis (later changed to the National Tuberculosis Association), and on January 1, 1905, the new association opened its doors. At the organization meeting, Dr. E. L. Trudeau, of Saranac Lake, N. Y., was elected president, and Dr. J. N. Hurty, then Indiana's state health commissioner, was named a member of the board of directors. At the first annual meeting,¹ President Trudeau sounded the keynote of the Association in the following statement:

"The first and greatest need is education; education of the people, and through them education of the state. It is evident that if every man and woman in the United States were familiar with the main facts relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection, not only might we reasonably expect as a direct result of this knowledge a great diminution in the death rate of the disease, but the people would soon demand and easily obtain effective legislation for its prevention and control."

A technique of health education had not been formulated and opportunities were taken advantage of as they were presented. The program was, therefore, evolved slowly, and largely from experience. From such empirical practices have been

¹ National Association for the Study and Prevention of Tuberculosis, Transactions of the First Annual Meeting, 1905.

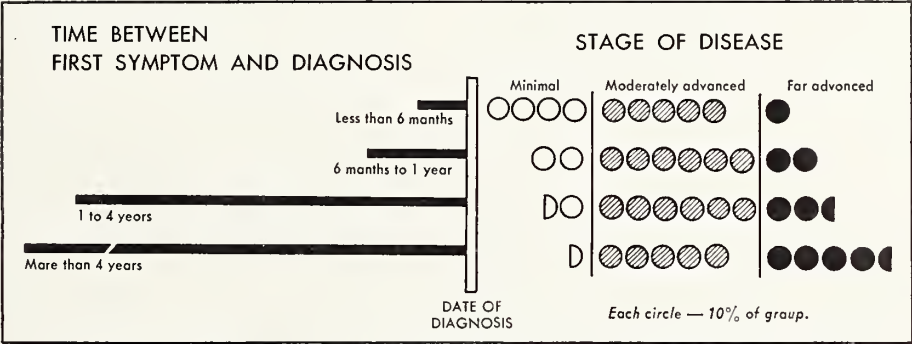
developed the policies and programs of the tuberculosis association. While the methods employed have undergone changes, the principle as enunciated by Dr. Trudeau remains unchanged.

The committee of the American Medical Association which promoted the National Tuberculosis Association suggested that it be a body made up of doctors and lay people in order to make it a community group, for such group, it was felt, would be effective in educating the public generally regarding the causes of tuberculosis and the prevention of spread of this disease. These leaders visioned a fuller understanding of the problem by the public, which would bring about the cooperation needed to facilitate the efforts of the medical profession. The association is essentially a medicolay movement. During the thirty-three years of the National Tuberculosis Association, thirty-one presidents have been medical men, the two laymen being outstanding in public health work. In Indiana, of the twenty-four presidents of the State Tuberculosis Association, eighteen have been members of the medical profession.

The value of early diagnosis and treatment is indicated in the following report issued by the Trudeau Sanatorium in 1935² which showed the percent of patients living at specified periods after admission:

CONDITION OF SANATORIUM PATIENTS—TRUDEAU SANATORIUM			
From Reports 1917—1931 inclusive (3,321 out of 3,907 were traced)			
On Admission	5 Years After Ad- mission	10 Years After Ad- mission	15 Years After Ad- mission
Minimal	93.0%	89.8%	87.6%
Moderately Advanced	85.0%	79.7%	76.7%
Far Advanced	53.0%	43.5%	41.6%
Non Tuberculous and Suspects..	93.0%	89.0%	83.9%

A large number of patients at the Trudeau Sanatorium are persons of means who have the facilities to take excellent care of themselves after discharge from the institution but, nevertheless, the figures as presented establish the point that early discovery facilitates recovery. However, let us take a more typical illustration: a study made in Cattaraugus County, New York, showed that after a period of five years, 70% of the active



(Based on a Study of the experience of 361 patients with tuberculosis)

A communicable disease is a public health problem and requires certain definite measures such as: (1) finding carriers of the disease; (2) reporting and registration of cases; (3) the isolation and treatment of patients in the home, in the hospital, or by other measures; (4) prevention of new cases by controlling the development of the disease; (5) education of the carriers and the general public; (6) research into causes, prevention, and cure.

While the tuberculosis program has recognized these principles, it has given particular attention to the need of early diagnosis, for early detection means early treatment with greater possibility of ultimate recovery. Early hygienic measures also reduce the opportunities of spread and therefore lead to control. Because of the nature of tuberculosis and particularly because symptoms of a mild nature appear negligible to the patient, he postpones going to a doctor until these symptoms become more pronounced and his tuberculosis becomes advanced. A study conducted by the National Tuberculosis Association shows definitely the relation of early diagnosis to the stage of the disease.

cases diagnosed in the minimal stage was classed as nonactive, and 22% was dead; among moderately advanced cases, 43% had shown a cessation of clinical activity of the disease. This study included essentially all the active cases of the adult pulmonary form reported or discovered in the twelve-year period, 1923-1935.³

Early diagnosis is but one phase of the tuberculosis program, for the plan to reduce the incidence of the disease has many ramifications. Large sums of money are spent annually by the National Tuberculosis Association in medical and social research in an endeavor to learn more about the tubercle bacillus. Some good results have already been had, and this research program, through newly acquired scientific facts, will probably indicate new methods of approach leading, it is hoped, to ultimate control.

² Downes, Jean: A Study of Mortality among Individuals with Active Pulmonary Tuberculosis, Milbank Memorial Fund Quarterly, July, 1938.

³ Seder, Ruth Abelson: The Costs of Tuberculosis with Special Reference to the Adequacy of Medical Care and Treatment. National Tuberculosis Association Social Research Series, No. 5.

PULMONARY TUBERCULOSIS—THE PROBLEM OF THE GENERAL PRACTITIONER

J. V. PACE, M.D.*

Rockville

The nation as a whole takes justifiable pride in the fact that the tuberculosis death rate has showed a more or less steady decline during the past quarter century. As has been often stated, however, this is merely an indication that our labors are bearing fruit, but by no means does it prove that the battle is won nor does it mean that the time has arrived when we can rest on our laurels. Tuberculosis is still the chief cause of death for the ages between fifteen and forty-five years and there are many districts in the country where the death rate for all ages is disproportionately high. All of this indicates that at least until such time as a specific cure is found we can not lessen our zeal nor fail to continue to exercise all of the fighting forces at our present-day command.

The foregoing is but preliminary to the point of this article, which is that the average physician does not exercise all of his skill and knowledge when it comes to the diagnosis of tuberculosis. I offer this criticism in the most kindly way possible and hope that it will be accepted as constructive criticism.

When it is realized that the greater percentage of those who enter our sanatoria are in the advanced stages of the disease, it can be recognized at a glance that something is radically wrong. There are many exceptions to the rule, but in general it can be said that the chance of a successful arrest of the disease is directly dependent upon early diagnosis and early treatment. It is true that perfected surgical technic offers hope to many who a few years ago would certainly have been doomed, but by far the best results are obtained in those cases who are not too far advanced to benefit by the less drastic forms of treatment. Even though the end results were the same, advanced disease means a prolonged period of invalidism which is expensive to the patient and to society at large.

For ten or fifteen years the special plea has been early diagnosis, and yet statistics show that in this respect the picture has not become much better. Even today, from sixty to eighty percent of the patients in all sanatoria have the disease in the advanced stage in spite of all the writings and educational campaigns. If this were due to the fact that only those most difficult cases were being referred to the sanatorium, there would be no criticism to offer. It would be only fitting that those cases which do not soon make proper response to home treatment be referred to the sanatorium which should be thoroughly equipped for all types of treatment. I am sorry to say, however, that in the

majority of instances that is not the reason that the sanatorium finds its beds filled with advanced cases, many of whom are so hopelessly sick and with such extensive trouble that nothing can possibly be done.

Those of us who are engaged in sanatorium work are impressed with the fact that, in the vast majority of instances, the case has become advanced because the physician has failed to make a diagnosis reasonably early. I will grant that in a number of instances the patient is told and refuses to believe, and perhaps in some cases the physician tries to spare the patient the shock of a true diagnosis, which, by the way, is rarely if ever justifiable.

A careful, diplomatic questioning of a great number of sanatorium patients shows conclusively that in a very large percentage the disease became advanced because the physician did not know that tuberculosis existed until the ravages of the disease became obvious.

Now I submit that such oversight on the physician's part cannot be ascribed to general ignorance, and certainly not to lack of concern regarding his patient. Rather I think, if the blame must be placed somewhere, it rests with our medical schools and training hospitals where almost universally matters pertaining to the lungs are touched upon very lightly or almost neglected altogether. Be that as it may, however, the fact remains that, erudite though he may be in most medical matters, the average physician is ignorant so far as tuberculosis is concerned, and this ignorance is due not so much to a lack of knowledge as to the fact that he has not accustomed himself to thinking about tuberculosis in the pursuit of his daily duties.

Certainly there is nothing formidable about the diagnosis of tuberculosis, especially in these days when we have other means than physical diagnosis at our command. There are, of course, border-line cases which prove difficult and often cases in which a differential diagnosis is puzzling for a time. Fully seventy-five percent, however, can be diagnosed quite easily if the physician will but give the case sufficient time and thought. Such has been our training, however, that most physicians think of pneumonia, bronchitis and almost everything else rather than tuberculosis whenever chest symptoms present themselves. I think perhaps this is partly due to the fact that fixed ideas are hard to overcome and the old classical picture of tuberculosis was one of emaciation, hectic flush and racking cough and, without contact with numerous cases, it is difficult for us to conceive that the disease can exist, and most often does, in the individual who looks surprisingly healthy. The classic picture of

*Superintendent, Indiana State Sanatorium at Rockville, Indiana.

the consumptive only comes with advanced disease and for the most part after it is too late for medical science to save the patient.

It is not the intent of this paper to enter into a detailed discussion of the diagnosis of tuberculosis. Rather I want to point out certain cardinal symptoms and signs whereby the physician, *if he will but keep them in mind*, can make a diagnosis in the great majority of cases. Whenever one or more of the following symptoms is present, the physician should suspect the possibility of tuberculosis and investigate further:

1. **Cough**—Any cough which persists longer than three or four weeks warrants suspicion. There is a surprising number of coughs labeled "bronchial" which are due to tuberculosis. Cough may not be an early symptom, however, and if only slight in degree the patient may fail to notice it.
2. **Malaise**—This is a symptom which is almost universally present.
3. **Fever**—A diurnal rise in temperature is the rule. It may not be marked and it may require the taking of hourly temperatures in order to detect it. This, too, is almost a universal symptom in tuberculosis.
4. **Loss of weight**—There is usually quite a marked weight loss until treatment is started.
5. **Hemoptysis**—If it can be surely ascertained that blood has been coughed up, it is almost always due to tuberculosis. Most patients spit up blood in some amount during the disease.
6. **Pleurisy**—An attack of pleurisy which comes on "out of a clear sky" is due to tuberculosis almost invariably, and as a rule it will be followed by an obvious effusion.
7. **Expectoration**—Most cases of tuberculosis raise sputum sooner or later. In some cases the sputum is slight in amount and may be swallowed.
8. **Vague Digestive Disturbance**—A common symptom in tuberculosis largely due to toxemia.

Any one of the foregoing symptoms should put the physician on his guard and he should continue his search further. Once he is mindful of the possibility of tuberculosis he is not nearly so apt to pass it by unnoticed. The careful history itself will almost make the diagnosis in many instances but, of course, the case has to be proved and that brings us to a discussion of the detection and localization of the pathology.

Since the perfection of the x-ray technique in chest work, there is considerable tendency to disparage physical findings in diagnosis. It is true that the x-ray shows finer detail and gives much more definite localization than can be done by physical examination alone and sooner or later every case must have an x-ray. The methods of physical diagnosis, however, offer the advantage that no expensive armamentarium is required and it isn't always possible to get a patient to an x-ray outfit without considerable delay. There are certain points also in differentiating pathological con-

ditions in which the methods of physical diagnosis are essential. By the use of the methods of physical diagnosis the physician can make a reasonably accurate diagnosis in most cases if he will but heed the obvious physical findings:

1. **Inspection**—This will tell the physician much, especially as regards the patient's general condition.
2. **Palpation and Percussion**—These methods require much more skill and practice and are not of much help in the hands of the average examiner.
3. **Auscultation**—It is by this means that the examiner learns most. Comparison of the breath sounds and vocal fremitus should be made in both lungs. If there is time for no other procedure the physician should at least listen for crepitant rales following exhalation and cough, covering the entire chest thoroughly, front, back and sides.

Positive proof that the patient has tuberculosis is shown by the finding of tubercle bacilli in the sputum, although it is not always wise to await a positive report before making a diagnosis, and as a rule the diagnosis can be made with reasonable certainty before the laboratory report is received.

Here again is a point which the average physician seems to overlook altogether. It is so easy to have the sputum examined, and a positive sputum removes all doubt. The physician should not content himself if the report is negative once, twice, or even several times. If several early morning specimens prove negative it is well to collect a twenty-four or thirty-six hour specimen. A culture may prove positive when other means fail. I think it is well for the physician to run sputum tests in his own laboratory. It requires a good microscope and considerable work but once the procedure has been well learned he has greater confidence in the reports and can speak with more certainty regarding the cases.

A survey shows that probably not fifty percent of sanatorium cases have had a sputum analysis prior to admission, and most of these patients give a history of productive cough many months or even years before they entered. This is unfortunate, not only for the patient in many instances, but also for the physician because neglect of these things is bound to place him in a bad light later on when the patient learns more about the disease.

As has been said, there are certain things beyond the physician's control. Certainly it is no fault of his if the patient fails to come to him until irreparable harm has been done. Nor can he be held accountable if the patient refuses to believe him if he makes a positive diagnosis. More and more, however, I have come to think that in most cases the diagnosis wasn't made because the physician himself wasn't aware of it and the reason he was not aware of it was due to the fact that he had not given the matter thought; in other words, he has not been "tuberculosis minded."

I am in no way trying to minimize the difficulties of diagnosis in certain cases of tuberculosis.

Some cases are found which tax even the facilities of the best clinics and sanatoria. I do want to state, however, that in the greater number a positive diagnosis can be made with reasonable certainty without long effort and without complicated procedures, and these procedures are such that they can be learned by every physician. In fact he knows them now if he will but think of them and apply them.

What should be the procedure when a patient presents himself for diagnosis? Ideally, of course, and especially from a public health standpoint, periodic chest examinations and x-rays should be the rule for all individuals. At any rate, when a case comes for diagnosis, the first thing to do is to take a careful history. The history is more important in this disease than in almost any other. Pay particular attention to the past history, bearing in mind the symptoms which have been aforementioned. History of tuberculosis in the family is of no little weight, especially if there has been ample opportunity for contact with an open case in childhood or early adult life. Take a history of the present symptoms and if there are present any one of the symptoms which have been named, be very suspicious of tuberculosis.

Next, do a complete physical examination, paying special attention to the procedure of eliciting post-tussic rales.

Having gone only thus far, you may be reasonably certain that tuberculosis is present. Regardless of this, however, procure a sample of sputum, to be followed by others if necessary until a positive specimen is found. If there is no doubt in the examiner's mind it is well to start treatment even before the laboratory report is received. Put the patient to bed at once, because it is at this early stage that bed rest is most effective.

It is well to have a radiograph of the lungs at the earliest possible date not only for diagnostic purposes but also to obtain much more accurate information regarding the extent of the trouble and the amount of tissue destruction; and it is invaluable in determining whether or not some form of collapse therapy is advisable. Let it be said here that a large percentage of chest radiographs made throughout the country are practically worthless. Good detail in a chest x-ray picture can only be obtained by proper machine settings and expert finishing of the resultant film, and the outfit must be sufficiently powerful to stop practically all motion and to enable pictures to be made at sufficient distance so that there will be no distortion. In other words it requires a good machine and a skilled operator. After the film has been made, one who has had long experience should interpret the result.

The making of chest radiographs and their interpretation is, therefore, a study in itself and need not concern the man in general practice unless he chooses to learn it thoroughly.

It is highly desirable also that a chest radiograph be taken at rather frequent intervals in

order that the physician may check on the progress of the case. Frequent x-ray pictures are quite reassuring both to the physician and to the patient.

Perhaps the physician will decide, once the diagnosis is made, that the case should go to a sanatorium, or he may decide to keep the patient in his care at home. Be that as it may, this is not a treatise on therapy. I only wish to state that, paradoxical as it may sound, *the most important point in the treatment of tuberculosis is the diagnosis*. The majority of cases respond favorably to conservative treatment if the diagnosis is made early. It is late diagnosis which is responsible for so many bad results and for the fact that our institutions have such a large number of hopeless cases. In the aggregate, the various collapse procedures have offered a new lease on life to a great number of cases, but it must be pointed out that only selected cases are suitable for this type of treatment and the prognosis in far advanced tuberculosis, taken as a whole, is still grave. It is true that in the occasional acute case the disease flares up and becomes suddenly wide-spread, but far more often the disease progresses rather slowly and it certainly is not to the physician's credit if the diagnosis has not been made before the case is far advanced and while there is yet good chance to overcome the disease.

Now a final word of advice to the physician, once the diagnosis is made. I believe the patient should be frankly told that he has tuberculosis in such a manner that he will not become terrified nor discouraged and yet so that he will realize the necessity for proper treatment. To withhold the truth from the patient is wrong, not only for the reason that he may do himself and others great harm by not knowing, but also for the reason that he is almost certain to find out the truth sooner or later from some source, and then he will severely censure his physician. It is true that human beings are loathe to learn unpleasant facts and a frank statement of this sort to the patient may cause him to change doctors. In the end, however, he will respect the physician for his frankness and knowledge and very often return to his care.

In conclusion, I wish to emphasize again that the diagnosis of tuberculosis is not difficult in the majority of cases. For the average case, the services of a specialist should not be required to make at least a presumptive diagnosis of tuberculosis, and the general practitioner has the necessary skill and apparatus at his command for this work if he will only "think tuberculosis" and take a little time to carry out the suggested steps.

After all, the solution of the tuberculosis problem is in the hands of the general practitioner. Probably not one per cent of all tuberculosis patients consult a chest specialist without having been referred by their family physician. The physicians in general practice, then, certainly are the clearing house for tuberculosis cases, and it is they who must make the early diagnosis if the problem is ever to be solved.

TUBERCULOSIS IN GENERAL PRACTICE

C. J. McINTYRE, M.D.

Indianapolis

The field of tuberculosis offers a neglected and wide opportunity for men in general practice. It is neglected by the physician because it is rarely an emergency, and by the patient because it is usually without pain. The idea that the care of the tuberculous has been taken from the general practitioner by the hospitals and sanatoria is erroneous. Of the 700,000 active cases in the United States, only about one-seventh are in these institutions.

The diagnosis of pulmonary tuberculosis is one of the real problems in medicine. It is one of the most common diseases, yet it is the frequent experience that many cases are neglected and undiagnosed long after a diagnosis should have been possible by the ordinary means at our command. Unfortunately the trend of the times and the improvement in mechanical methods have been detrimental to skill in physical examination. We have been told that tuberculosis is seen and not heard, that a poor radiologist can make a better diagnosis than a good clinician. This is partially true, but carries an implication that is not true. It would be the height of folly to limit oneself to the stethoscope. A skilled physical examination will bring out information that is completely inaccessible to the x-ray. Furthermore, it is impossible to acquire an understanding of pulmonary pathology without a knowledge of physical signs. In addition, x-ray films are expensive and often unavailable. There is such a thing as family practice. Socialized medicine hasn't abolished it—yet.

A GROUP DISEASE

Tuberculosis is a group disease. The smallest of the groups is the family, and the family is the especial field of the general practitioner. To care properly for this field, he must constantly think of tuberculosis, remembering that it is the most

common cause of death between the ages of fifteen and thirty-five, and its manifestations differ in infancy, childhood, maturity and old age. To know a family one must not only have a history of the parents, brothers and sisters, grandparents, aunts and uncles, but should know the tuberculosis antecedents of its guests and servants. While interrogating a patient, ask whether he had the measles or whooping cough before or after puberty. Many persons subject to either of these after maturity eventually develop pulmonary tuberculosis.

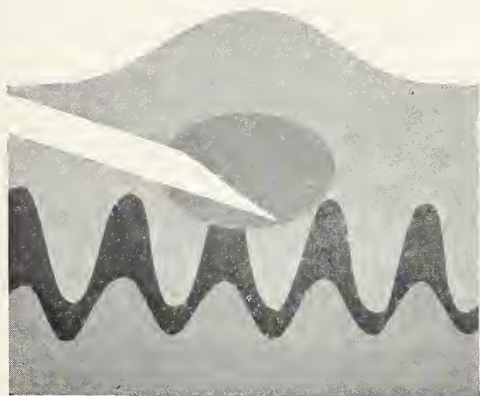
THE TUBERCULIN TEST

The tuberculin test should be used routinely by every physician and he should actively cooperate with every testing program in his vicinity. It will help to diagnose many cases of symptomless early disease that now escape discovery, by directing the attention of the physician to the hidden focus of infection. A positive reaction renders the family tuberculosis conscious and stimulates a desire for adequate diagnostic procedure and subsequent treatment.

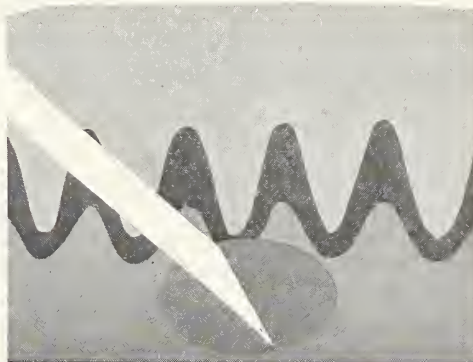
Begin by testing all children when they enter school and retest all non-reactors at the high school age. At six years the social contacts have been limited, and the positive reactors probably have been infected at home. This will direct attention to the adults in the family and a proper follow-up will develop a diagnosis in some member of the family while there is still a chance for recovery. Testing at the high school age will catch the youth whose progressive, active pulmonary disease seems to start at puberty.

Of the two accepted methods of giving the tuberculin test, the cutaneous (Pirquet) is the less accurate. It is easily applied, doesn't require dilutions or a special syringe, and the patient isn't frightened by the thought and sight of a needle.

INSERTING NEEDLE



Right—intradermal



Wrong—subcutaneous

No local reaction may appear and general febrile reaction may result.

The National Tuberculosis Association recommends the intradermal (Mantoux) method. It is more accurate in that a known amount of tuberculin may be given and the dose increased if desired. Tests should be read forty-eight hours after application. Negative reactions rule out infections with tubercle bacilli, providing the dosage has been adequate. A positive reaction proves that infection with tubercle bacilli has occurred but doesn't necessarily prove that clinical disease is present. The diagnosis isn't complete. The physician's work has just begun. Two questions remain to be answered: Is clinical disease present, and from whom did the infection come? These questions are answered by one word—observation.

THE FOLLOW-UP

Observation means taking stock of every member of the group tested. It includes physical examination, sputum examination, and x-ray when in doubt. Don't neglect the aged. It has been said that more than half the people past seventy years of age have tubercle bacilli in their sputum. Their years of productivity are past. They become the caretakers and infectors of the children in their homes. Be sure they are tuberculin tested. A negative reaction frees them of suspicion quickly and easily. A positive reaction calls for sputum examinations followed by x-ray, if the sputa are negative, as physical examination in this age group is unsatisfactory.

Infection with the tubercle bacillus carries a wide range of possibilities for the patient and a grave responsibility for the physician. It may never cause obvious symptoms or demonstrable pathology. In infancy it may remain latent in the glands, or in a relatively short time may develop a fatal tuberculous pneumonia, acute miliary tuberculosis, or a tuberculous meningitis. If the child lives through the third year, though the x-ray demonstrates a primary complex (Ghon tubercle in the parenchyma of the lung with secondary involvement of the tracheo-bronchial lymph nodes), we may reasonably expect that he will go through childhood without clinical manifestations of pulmonary disease. Assuming that this statement is true, what course should be pursued with the reactors between the third and thirteenth years?

1. Separate the child from the source of infection by removing the patient or child from the home.
2. Correct defects such as carious teeth and infected tonsils.
3. Suggest a suitable diet and rest periods.
4. Re-examine every six months, remembering that this is the age in which extra-pulmonary tuberculosis develops, especially in bones and joints. These re-examinations will catch the early Pott's and hip-joint cases in time to conserve function and prevent deformities.

THE SIGNS OF PULMONARY TUBERCULOSIS

While it is true that this disease may affect any part of the body at any age, after puberty the pulmonary type is the most usual. Its signs may be divided into three groups: positive, presumptive, and suggestive.

The positive sign is the finding of tubercle bacilli in the sputum. Sputum examination is obvious, simple, direct, and inexpensive. Every sputum should be examined. A negative sputum means nothing. It is almost criminal to tell a patient that he hasn't tuberculosis on the evidence of one negative, although many negative sputa are presumptive evidence that he hasn't an open case. The laboratory of the State Board of Health will examine all sputa and every physician should be well supplied with its mailing containers.

The presumptive signs are hemoptysis, pleurisy with effusion, rales above the third rib, and x-ray findings.

Ninety-five per cent of all pulmonary hemorrhages are due to tuberculosis. The other five per cent are due to bronchiectasis, mitral stenosis, abscess, infarcts, neoplasms, and foreign bodies. A blood-streaked sputum isn't a hemorrhage; there will be a dram or more of bright red blood unmixed with mucus in a hemorrhage.

Pleurisy with effusion is almost always due to tuberculosis. In spite of lack of physical and x-ray signs, it warrants a positive diagnosis, although it must be differentiated from the exudates of pneumonia and the transudates of heart and kidney affections.

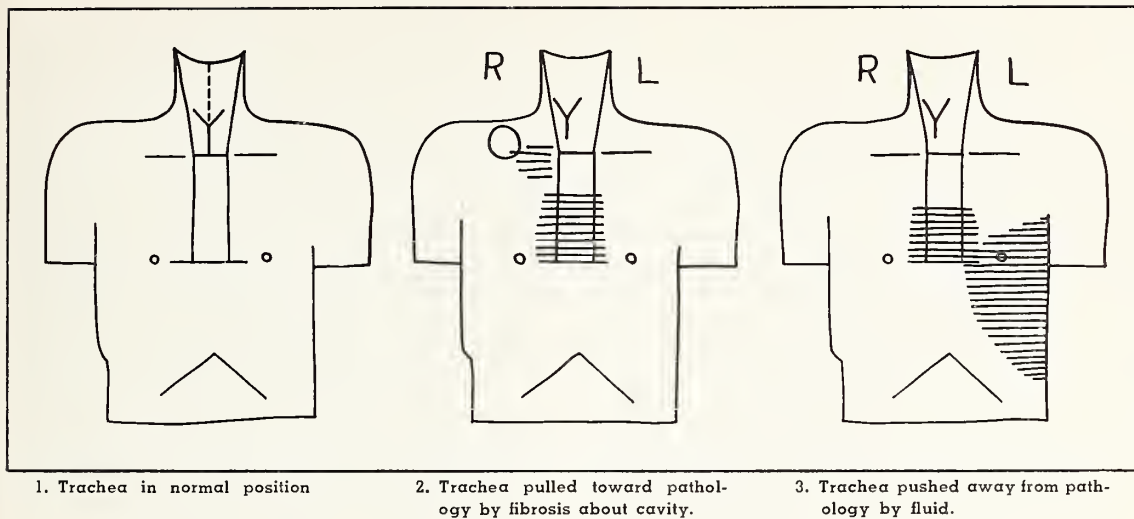
Apical moist rales are almost pathognomonic if they are localized and persistent. Rales from other causes do not persist from day to day, week to week, and month to month.

The x-ray sign of early tuberculosis is the shadow of infiltration in the lung fields. A positive diagnosis on peribronchial thickening is wrong. Peribronchial thickening may be the result of non-specific causes such as chronic tonsillitis or sinusitis.

The suggestive signs are cough, expectoration, night-sweats, loss of weight, loss of voice, amenorrhoea, malaise, tachycardia, and afternoon temperature. While these signs suggest tuberculosis, they could all be caused by pathology outside the lungs.

DIFFERENTIAL DIAGNOSIS

Cough, expectoration, hemorrhage, and loss of weight with more or less definite constitutional symptoms indicate some abnormality of the respiratory tract. While pulmonary tuberculosis should always be uppermost in the physician's mind, there remains the need for careful differential diagnosis. Among the possibilities are bronchiectasis, mitral stenosis, pulmonary abscess, neoplasms, mycotic disease and the occupational diseases. The history should be reviewed looking for a possible contact in infancy or early childhood, and a temperature chart set up recording the temperature at nine,



eleven, three, and five o'clock. These hours do not immediately follow the meals and thus obviate confusion with the temperature of digestion. While checking females, do not be confused by the premenstrual temperature of the week preceding the period. Start sputum examinations; not one, but many, examining for fungi as well as for tubercle bacilli. Get a Wassermann and a white count. A low white count favors tuberculosis. A high white count with a septic temperature curve suggests abscess, especially if there is a history of recent pneumonia, operation or accidental injury. While waiting for reports on blood and sputum, recheck the physical examination.

Begin the examination by locating the heart and trachea. If, without enlargement, the borders and apex beat of the heart are shifted, there is sure to be some pulmonary or pleural pathology. Check the valvular sounds and save lost motion. It is rather disconcerting to make a diagnosis of tuberculosis upon hemorrhage, rales and dyspnoea, and later find the presystolic murmur of mitral stenosis. A changed relation of the trachea to the sterno-mastoids suggests the mediastinum has been pushed or pulled from its accustomed position. This is determined by observing the difference in the depth and length of the depressions formed by the trachea and either sterno-mastoid. The trachea is shifted to the side in which the depression has been partially or completely obliterated. The heart and trachea are shifted away from the affected side by fluid and air in the pleural cavity. In either of these conditions there is little or no movement on the affected side. Breath sounds will be diminished according to the completeness of the pneumothorax or the amount of fluid present. Percussion will develop tympany over the pneumothorax and dullness over the fluid. The heart and trachea are shifted toward the affected side by fibrosis and massive collapse. Fibrosis with sufficient pull to dislocate the heart and trachea is usually about cavities which are the result of tuberculosis, bron-

chiectasis or abscess. In massive collapse, if the displaced heart toward the affected side is not given its due weight, the diagnosis will usually be postoperative pneumonia.

Bronchiectasis may be suspected when the patient has a moderate or considerable amount of thick, yellow, or yellowish-green sputum, negative for tubercle bacilli on repeated examination, with persistent, coarse rales in the bases. The diagnosis can be proven by mapping the affected lung area with lipiodol injections and visualizing it on the x-ray film.

The symptoms of pulmonary malignancy are pain, dyspnea, and an ever increasing cachexia. The dyspnea is out of all proportion to the anatomical changes. It is not constant, but comes on without cause and leaves suddenly with or without treatment. These symptoms, with a cancerous history, plus x-ray and bronchoscopic studies, will develop a diagnosis.

The differential diagnosis between tuberculosis and the industrial disease depends upon painstaking observation, a history of exposure in industry, plus the characteristic x-ray findings.

MANAGEMENT

Without specific medication, the management of the tuberculous hinges on the education of the patient and his family. He must be made to believe that his disease is curable and *curable in Indiana*. He should know that rest is the cure and that he goes to bed in order that he may breathe less often and less deeply. The respiratory rate is twenty-five thousand every twenty-four hours. With bed-rest the respirations fall to fifteen thousand every twenty-four hours, and this reduction of ten thousand respirations, in early cases without cavitation, will effect many cures. He should know that the respiratory rate is the guide to all his activities. He may do the things that will enable him to breathe less often and less deeply, and refrain from doing the things that will cause

him to breathe more often and more deeply. He should understand that if improvement doesn't occur promptly, in a period of ninety days, that some form of collapse therapy should be instituted. Hygienic measures, in the presence of cavitation, are contra-indicated, and collapse should be instituted as soon as a diagnosis is made. Answer questions before they are asked. Tell him his arms and legs will become weak and flabby, but unless his lungs recover, his arms and legs are of no value and they can be redeveloped after recovery. Good food, fresh air, and cod-liver oil are valuable and need only be mentioned. Written instructions should be given covering the following: cover mouth and nose while coughing and sneezing; burn all sputum; use separate dishes and boil after each meal; sleep alone; never close the windows; time out of bed, if any; hours for company. Leave nothing to chance. When exercise is allowed, it should be only early in the morning. By all that is great and good, don't ever prophesy regarding the time required for a

cure. The time always exceeds the physician's hopes and the patient's expectations. Visit patients with regularity. There is no other disease in which sensible optimism yields such great returns.

SUMMARY

1. Think tuberculosis, because it is the most neglected disease.
2. Develop diagnostic skill and the habit of observing the signs of tuberculosis.
3. Tuberculin test not only the individual but the group to which he belongs.
4. Failure to examine sputum is inexcusable.
5. Reactors and members of tuberculous families require periodic examinations.
6. Reactors past puberty and all suspects are entitled to an x-ray.
7. More exact methods in differential diagnosis, such as lipiodol mapping and bronchoscopy, yield remarkable results in skilled hands.
8. Management requires periodic visits and written instructions.

MEDICAL TREATMENT OF PULMONARY TUBERCULOSIS

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Tuberculosis, being one of the oldest known diseases, has been the subject of study and research by the medical profession for centuries. Today this interest is even more evident than it was in the past. This is particularly apparent in the field of prevention. The profession is beginning to realize that the general practitioner is the one who first comes into contact with the case, and that upon his interest in arriving at a correct and early diagnosis depends the subsequent relief the patient will receive.

Every physician should know the essential points in diagnosis and treatment. If the disease is ever to be stamped out, the medical profession should take even a more active interest in this field of work than they have in the past. It is true that the general practitioner in one year's time will see only a few cases of tuberculosis, and it is asking a great deal of him to become very enthusiastic about a disease which forms only a small part of his many and varied duties. However, unless a plan for the wholesale examination of the entire population is adopted, individual members of the medical profession hold the key position in any scheme for the control of tuberculosis. It should not be necessary for the physician to be informed on all the details of diagnosis and treatment, but he should be tuberculosis conscious, keeping the disease ever in mind so that a case presenting suspicious symptoms or a family history of the disease will be given the necessary examinations that are essential for a diagnosis and proper treatment. When he finds a positive case, his obligation

is not ended with the patient alone. He has even as great a duty to the family and the community at large. It is a well known fact that the majority of active cases of tuberculosis are found among the home contacts with an open case. If the attending physician would be frank with the family and use his influence to have every member of the family examined, one of the greatest steps in the control of tuberculosis would be accomplished. Here it may be brought out that the simple use of the tuberculin test will bring to light many unsuspected cases and hidden sources of infection. Also, by the sputum examination of all patients having chronic coughs, many of the unsuspected tuberculosis carriers of the chronic type could be found.

In discussing the treatment of pulmonary tuberculosis, the preventive, medical, and surgical phases of the disease are inseparable. The one great advance made in the treatment of tuberculosis, since the importance of rest was recognized, has been the use of surgical measures to bring about more complete rest to the diseased part and to close cavities, large and small, which are a constant source of danger to the patient. In most sanatoria today, seventy per cent or over of the patients admitted are receiving some form of collapse therapy. It is not the purpose of this paper to discuss surgical indications and procedures but only to emphasize the point that medical supervision of patients who have had collapse therapy is just as important as it is to those who are being treated by other means.

The advancement made in the prevention and

control of tuberculosis has been gradual and based on experience gained through scientific investigation and clinical observation. This advance in our knowledge of the control and treatment of this disease began with the discovery of the germ of tuberculosis by Robert Koch in the latter part of the nineteenth century. Prior to this epoch making discovery, no methods for the control of tuberculosis existed and the treatment was mainly symptomatic. Many of the observations and suggestions of these early workers in tuberculosis have been the basis upon which much of the present methods of prevention and treatment have been founded.

The success of the fight that is being carried on is seen in the gradual but definite decline in the death rate and a similar fall in the morbidity rate. In 1900, for instance, there were 200 deaths for every 100,000 people in the United States, and in 1935 this rate had fallen to 53 per 100,000. Almost every civilized country in the world has shown a decline in the death rate since an organized effort for the control of tuberculosis began some thirty years ago.

Before any successful form of treatment of pulmonary tuberculosis can be instituted, some knowledge of the pathological process and its evolution is essential. The physician must know whether he is dealing with a minimal, moderately advanced, or far advanced disease; whether the disease is acute or chronic; whether it is of the primary or re-infection type; whether it is uni-lateral or bi-lateral; whether cavities are present, and if so, the size, location, and the character of such cavities must be determined. The physician must also decide whether the patient is to be treated at home or whether he is to be sent to a sanatorium; whether routine management shall be carried out or if surgical collapse is indicated, and if indicated, what type of collapse is to be used. The physician will more than likely be asked whether a change of climate will be necessary. Many factors enter into this decision. Osler has said, "Care without climate is better than climate without care." Dr. Lawrson Brown thought that climate influenced the progress of tuberculosis ten or fifteen per cent. A survey of the tuberculosis death rate of the Rocky Mountain region, which comprises about five states, shows a much lower death rate than the country at large. If a patient is financially able to be cared for in a suitable climate and can be free from worries that separation from the home may bring, a change of climate may be very beneficial provided the other essential procedures in treatment are obtainable.

NECESSITY FOR COMPLETE EXAMINATION

One of the first essentials in the proper management of the case of tuberculosis is to make a thorough physical examination. We are all familiar with the improvement seen in tuberculosis patients after the extraction of abscessed teeth or the removal of infected tonsils, etc. Every effort should be made to bring the patient's fighting abil-

ity to the highest point and this can only be accomplished by correcting each physical defect and by adjusting the patient's mental attitude.

Many and various drugs and remedies have had their day in the treatment of tuberculosis. Their great number is a proof that no specific cure has ever been found. Drugs are used mainly to combat symptoms. There is only one remedy that has stood the test of time. Rest is the main-stay in the treatment of tuberculosis in all its manifestations.

The problem in the treatment of tuberculosis is to correct a progressive disease process into one that is non-progressive, and to prevent a spread of bacilli from infected foci into healthy tissue. Experience has taught us that a diseased or injured part heals best when at rest. This fact is as old as the practice of medicine itself. In the past it has not always been utilized and even today we hear of patients with an active tuberculosis being advised to seek some light job on a farm. Long rest is essential in the healing of tuberculosis. This principal is applied in all forms of the disease—pulmonary tuberculosis, tuberculosis of the bones and joints, and tuberculosis of the larynx. Why is rest so invaluable? The patient is sick because of his intoxication. This intoxication results from the absorption of focal substances. It is the constant absorption of these focal substances and toxins of the tubercle bacillus that produces fever, loss of weight, etc. The rate of absorption depends on the circulatory and respiratory actions of the body and upon bodily activity. Anything which tends to increase these activities naturally increases the rate of absorption. Likewise, rest diminishes the rate of absorption and the intoxication as well as cough and expectoration, etc.

IMPORTANCE OF DETAILS

In the supervision of a case of tuberculosis, attention to detail is of the utmost importance. The patient is to be under treatment for weeks and months and there are times when the physician may become a little lax in his observations and minor clinical changes seem of little importance. This may be the critical time in the whole course of the patient's fight to regain his health. It is characteristic of the disease to run an irregular course. Very few patients go on to recovery without having many ups and downs in the course of their disease. It is most important for the attending physician to be alert and not to minimize any symptoms however unimportant they may seem.

A patient was seen recently with a minimal lesion in the right infra-clavicular region. The symptoms were mild and the general condition of the patient was good. Bed rest was advised and serial x-ray films over a period of several months showed absorption of the exudate without leaving any tissue destruction. A program of very gradual increase in the patient's activities was started. The patient, from all appearances, was doing well,

but the attending physician noticed a slight rise in temperature and pulse. Becoming suspicious, an x-ray was made which revealed a small new lesion in the opposite lung. A careless attitude on the part of the medical attendant might have caused this patient months of suffering and a lost opportunity of regaining his health.

COMPLICATIONS

The possibility of complications developing during the course of treatment must be constantly kept in mind. A patient who has been doing well and for no apparent reason begins to lose ground may be slowly developing an extra pulmonary lesion. The most frequent organs attacked are the intestines, larynx, kidneys, and bones and joints. One must be ever watchful for the spread of tuberculosis into distant parts of the body.

A patient who had been receiving artificial pneumothorax with excellent results began to complain of pain in the region of the lower dorsal spine. The pain was not severe and the attending physician paid little attention to this complaint, as a casual examination revealed no involvement of the spine. Sometime later, while giving the patient a pneumothorax treatment, a slight prominence in the lower dorsal region of the spine was noticed. An x-ray revealed a rather extensive destruction of the bodies of two vertebrae. The patient had shown the way to the physician but failure on his part to properly evaluate the importance of keeping in mind that tuberculosis is a general systemic disease and often attacks several organs simultaneously, and his failure to make use of the x-ray when symptoms first developed, caused this patient a long and costly delay in regaining her health.

TREATMENT OF CHILDREN

The treatment of tuberculosis in children will depend upon the nature of the infection, whether one is dealing with the primary form of the disease or whether it is one of the re-infection type. A knowledge of the mode of infection and the pathological characteristics is essential in dealing with tuberculosis in children. In primary infection, the tubercle bacilli enter the body by way of the upper respiratory tract and lodge in some part of the lung. Liberation of tuberculin at this site produces a mononuclear cell pneumonia accompanied by tubercle formation. The tubercle bacilli are disseminated to the regional tracheo-bronchial lymph glands. This primary focus in the lungs and the involvement of the tracheo-bronchial lymph glands constitute what is known as the primary complex. The clinical picture, at this time, presents the following points of interest. During the pre-allergic period which is usually six to eight weeks, the patient presents no symptoms at all. The allergic phase of the primary infection is ushered in by certain clinical findings. First, fever; second, cutaneous sensibility to tuberculin; third, increase in sedimentation rate of the red

blood cells; and fourth, the x-ray picture of a perifocal pulmonary infiltration. The fever is usually transitory. The sedimentation rate remains increased for some time. The pulmonary infiltrations remain recognizable by the x-ray for varying periods but eventually undergo resolution and terminate in the production of fibrotic or calcified scars. The course of primary infection is usually benign and seldom results in tissue destruction. Bacilli may escape beyond the confines of the local lesion and gain entrance to the blood stream and be carried to distant parts of the body.

The outlook for recovery in the primary form of tuberculosis, whether in a child or an adult, is always good, except for children below the age of five. In infants one year or under, primary infection is a very serious condition. A large percentage of infants infected with the tubercle bacillus develop a fatal form of the disease, death resulting usually from miliary tuberculosis or tuberculous meningitis. As the age increases, the dangers from fatal disease diminishes. After five years of age, primary infection can be regarded as affording very little danger to the child or adult who has acquired this type of tuberculosis.

A satisfactory explanation can not be given for infants and very young children so often developing fatal disease from a primary infection; in older children and adults, the disease usually tends to heal. A change in the lymphatic anatomy as the individual advances in age is given by pathologists as a reason for these variations in the course of primary infection.

These observations have a very practical bearing on the treatment in this type of tuberculosis. Infants and very young children with primary disease should be removed from any further source of infection. Treatment is of very little avail as the disease will go on to spontaneous recovery or end fatally, as many do, in a generalized tuberculosis or meningitis.

In older children and adults, the treatment of the primary infection consists mainly in supervision. It is necessary to remove the patient from all possible further contact with the disease. Bed rest should be instituted as long as fever persists and the sedimentation rate is increased. The patient should be allowed gradual increase in exercise after symptoms subside and clinical and x-ray evidence of healing is satisfactory. After the stage of acute clinical symptoms has passed, no treatment is necessary except that the patient should be kept under observation and receive an annual examination including an x-ray.

Children with the re-infection type of the disease have lesions similar to those found in adults and should be treated the same as adults.

There is another group of children who are sensitive to tuberculin but who show no evidence of clinical disease. This group is usually found between the ages of five and fifteen and are those children who have passed through the primary

infection, the only remaining evidence of their previous infection being their reaction to the tuberculin test, and possibly the evidence of healing as revealed on the x-ray film. Until these children reach the age when clinical disease becomes manifest, which is usually after puberty, no form of treatment is necessary except that they be removed from any further source of infection. It is very doubtful if all the means that have been devised in the past to protect this group of children from developing re-infection tuberculosis later in life are worth the time and money that these measures have consumed. Clinical experience has

shown conclusively that children between the ages of five and fifteen very rarely develop the adult type of tuberculosis.

CONCLUSIONS

In conclusion, it might be added that pulmonary tuberculosis, in its active stage, can be handled best in a sanatorium or hospital because of the facilities these institutions have to offer, and further, from the stand-point of prevention, all patients with an active lesion should be isolated until it is safe for them to be in contact with others.

TUBERCULOUS PNEUMONIA

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Tuberculous pneumonia is one of the most serious forms of the disease. It is rapid in onset, runs a fulminating course, and frequently ends fatally. The pathogenesis is fairly well understood, namely, the deposition of a large number of tubercle bacilli in high concentration upon an allergic tissue. This reinfection is usually endogenous and may be bronchogenic or hematogenous, the source of the bacilli being an old focus in an apex or a ruptured tracheobronchial lymph node. The response of the tissue is at first purely exudative and without tubercle formation and is precisely the same as the reaction which follows the introduction of a large dose of tuberculin into the tissues of an allergic individual. Pathologically there are two forms of the disease recognized, the lobar and the broncho-pneumonic. Clinical distinction between them is difficult as both are very acute in nature and produce similar symptoms. Although small areas of broncho-pneumonia are common in conjunction with chronic tuberculosis, the term broncho-pneumonia as discussed in this paper will be taken to mean the typical entity known as *phthisis florida*.

PATHOLOGY

In the lobar type, the site of the lesion is more commonly found in one of the upper lobes rather than in the base of the lung. (See cases 3 and 4.) All or part of one lobe may be involved and the disease in its early stage is not unlike the ordinary lobar pneumonia. The affected portion is heavy and airless, the alveoli being filled with the cellular and fluid elements of the blood stream. Massive caseation appears in from one to two weeks at which time the cut surface presents a gray or yellow appearance. Cavity formation, which appears early, is frequently present and it is to be noted that the walls are ragged and without the usual delimiting membrane. The surrounding lung which is not caseous is gelatinous in consistency and this in time "tapers off" into normal tissue.

When the disease has become more chronic it also becomes more proliferative and eventually large amounts of scar tissue appear.

The acute broncho-pneumonic form may be very limited in extent involving only a few lobules, or it may be massive, involving all of one lung and most of the other. It is this latter type that is known as *phthisis florida*. Until caseation, which appears early, develops, the disease is not unlike a non-tuberculous broncho-pneumonia both in appearance and distribution. The inflamed or perhaps normal tissue between the caseous masses gives the lung a marbled appearance. There is early excavation and extension of the disease from the original foci. The source of the infection may be seen in an old tuberculous focus in the apex of one lung, or more probably in a caseous mediastinal node which has ruptured. Enlarged, soft, tracheobronchial nodes are practically a constant finding and it is the author's opinion that they enlarge, caseate and rupture and are the cause of widespread infection rather than the result. A hemoptysis in which the blood is laden with tubercle bacilli is also a source of a broncho-pneumonic spread.

CLINICAL SYMPTOMS

The clinical pictures of the two forms of tuberculous pneumonia are so similar that they may well be discussed together. The onset is abrupt and the course fulminant, not unlike the mine-run non-tuberculous infection except that in no instance does the disease ever heal by crisis or lysis. The term "galloping consumption," long in use by the laity, is a well applied term. The temperature is high, 103 to 106, with daily remissions. The pulse is rapid and respirations are increased in frequency. In extreme cases there is slight cyanosis of the lips and nails. Chills are common, especially at the onset. Cough and expectoration are variable symptoms in the early stages but constant after suppuration takes place. The skin—and

tongue are dry and the cheeks flushed. Night sweats are common, as is delirium. Loss of weight and strength is rapid, striking, and extreme. The physical signs are variable depending on the extent and stage of the disease. Over the affected area, or areas, the percussion note is dull. Many crepitant and gurgling rales are audible. The breath sounds are bronchial. There may be marked loss of undulatory movement.

DIAGNOSIS

The presence of tuberculous pneumonia in the absence of an x-ray film should be suspected when (1) the sputum is positive for tubercle bacilli; (2) the patient has all the symptoms of pneumonia, the signs of which exist in an upper lobe; (3) there is a past history of chronic ulcerative tuberculosis; (4) "summer pneumonia" develops; (5) the patient doesn't die or doesn't get well. The tuberculin test is of great value, when negative, as it rules in non-tuberculous infections, an abscess for instance, which at times occupies an upper lobe and confuses the x-ray diagnosis.

The leukocytes are increased to between 10 and 15,000 and are not so numerous as in other types of pneumonia. The differential count is remarkable, there being a preponderance of stab cells and mononuclears. The sedimentation rate is greatly accelerated in all cases.

THE X-RAY FILM

In most instances the x-ray film gives one the diagnosis at once, but not always. In the lobar type the consolidation is usually in an upper lobe and not infrequently a cavity is visible in the center of this density. Pleural thickening at the

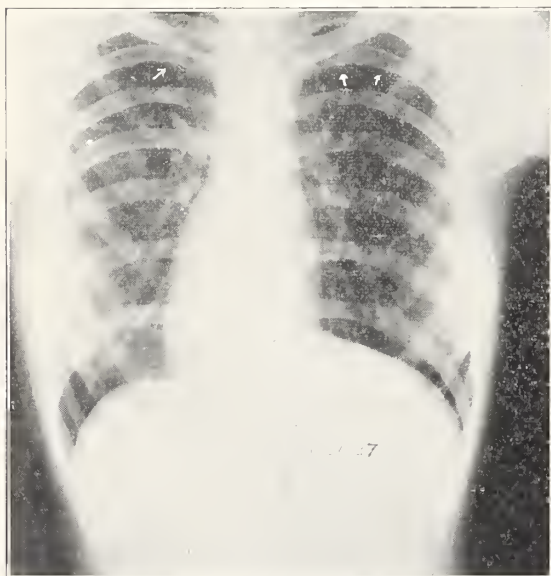


Fig. 1. Case I. White school girl, age 15, admitted Dec. 1936 with early apical tuberculosis. Rapid and marked improvement. Discharged Mar. 1937. Weight 116 pounds. This film was taken Oct. 1937. Her condition was excellent.

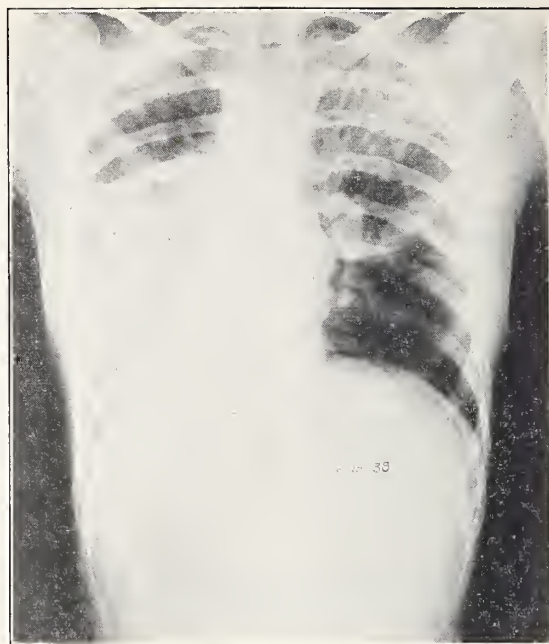


Fig. 2. Case I. Re-admitted Mar. 1938. Patient had become suddenly ill one week previous to admission. Wide-spread broncho-pneumonia, phthisis florida. Temperature 104, weight about 80 lbs. Pneumothorax was induced on the left side shortly after this film was taken. This lung is now, after six months, completely collapsed, and cavity formation has been averted. Her temperature is down to 101 but there are no noticeable gains in weight or strength.

periphery or in an interlobar space usually speaks for tuberculosis as does the presence of fibrosis, if any be visible. The presence of an old tuberculous infiltration in the summit of the lung would also indicate that the pneumonia was the result of this and secondary to it.

PROGNOSIS AND PROGRESS

These depend on the extent of the disease and the treatment. In the extensive lobar types where more than one lung is involved and in *phthisis florida* the prognosis is not good. Death may occur as early as three weeks and in the event that the patient does not die the progress is very slow.

Remission of the acute symptoms, especially fever, occurs from time to time, followed by relapses. Emaciation is extreme. Gradually, as exudation wanes and fibrosis begins, the disease loses its acute nature and becomes chronic. Complete recovery is unusual and not to be expected. After the disease drags on for several months, and the patient shows little or no improvement, there are likely to be marked personality changes. The fever, cachexia and emaciation weigh heavily on him and eventually hope is lost. The cheerful, Polyanna attitude, so characteristic of tuberculosis, is dropped and he becomes irritable, unreasonable

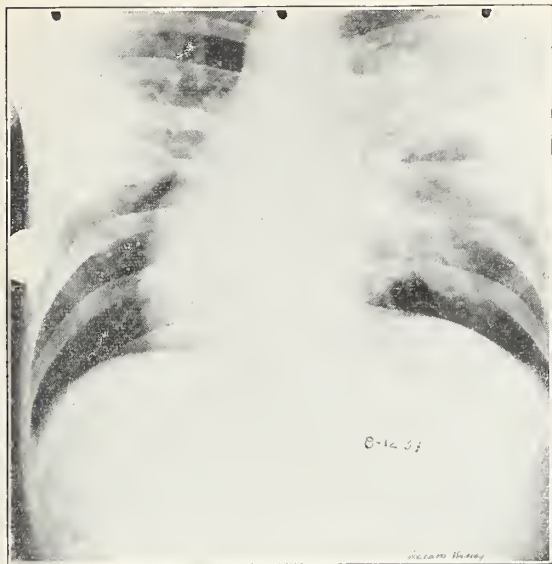


Fig. 3. Case II. White, male, age 34, admitted Aug. 1937. Temperature 106. Patient delirious. Another case of phthisis florida. Large cavity visible. Sputum contained myriads of tubercle bacilli. Patient kept flat in bed for ten months. Discharged July 1938 considerably improved but no visible gain in weight.

and petulant. Outbursts of temper occur almost daily. Small gains, however, tend to renew hope of recovery and the patient's disposition runs parallel with his physical condition.

In the less extensive lobar cases (see Figs. 4 and 5) improvement may be fairly rapid, once the patient is put to bed and treatment instituted. The prognosis is infinitely better when the disease is limited to one lung.

TREATMENT

Immediate and absolute bed rest is mandatory if recovery is expected. Early pneumothorax is advisable in practically all instances for the following reasons: (1) it conserves whatever healthy lung tissue may be present by stopping or retarding the spread of the disease; (2) it may close a cavity, if present, or prevent the formation of the same. In cases of long standing, the induction of pneumothorax is often impossible because of an adherent pleura, this being a sequel of pneumonia in nearly every instance. Pneumothorax, however, is always worth trying as it is often possible to "make space" in the most unlikely cases.

Although the author has not tried phrenic paralysis on any early cases, it would seem that this would be a logical procedure when the induction of pneumothorax was found to be impossible.

Thoracoplasty is, of course, reserved for the time when the disease is no longer acute but in the chronic ulcerative stage.

CASE REPORTS

Case I. School girl, white, age 15, admitted December, 1936, because of slight fever and cough

with expectoration. Sputum was negative. Rales in apices of both lungs. X-ray (Fig. 1) showed early apical tuberculosis, more disease being present on the left; the tracheobronchial nodes were somewhat enlarged. Sedimentation index, 21 mm in hour (Cutler). The patient was treated with bed rest and soon had a remission of all symptoms and a gain in weight from 94 pounds to 116 pounds. Discharged in three months because parents insisted on taking her home. Patient returned every three months for x-ray films, all of which showed improvement. Almost exactly one year after discharge she became suddenly ill with fever of 103 to 104. She was re-admitted and found to have extensive tuberculous broncho-pneumonia (Fig. 2). Loss of weight and strength was amazing. Pneumothorax was started on the left side and the patient improved slightly. After three months in the hospital she again returned home. Refills are being given every ten days to two weeks. There has been no gain in weight although the patient has a good appetite. The fever at present is 101 in the afternoon and slightly lower in the morning. Rales are audible in the right lung but there is no evidence of cavity formation. The left lung is totally collapsed. The patient has an unproductive cough.

Case II. White male, age 34 (Fig. 3). No previous serious illness; formerly a track athlete. Patient was admitted in August, 1937, with extensive tuberculous broncho-pneumonia. Had been ill approximately one month. Severe cough, sputum

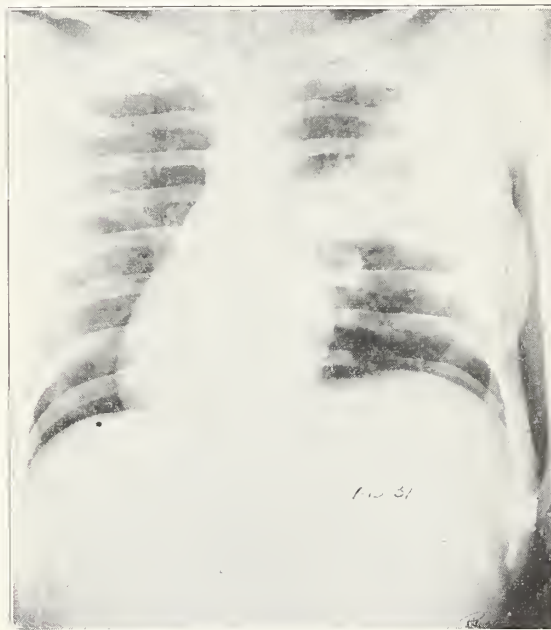


Fig. 4. Case III. White, housewife, age 23, admitted July 1937. Diagnosis, tuberculous lobar pneumonia. A cavity is present. Pneumothorax produced a satisfactory collapse and a negative sputum. Patient discharged Dec. 1937 much improved and symptom free. Refills every two weeks.

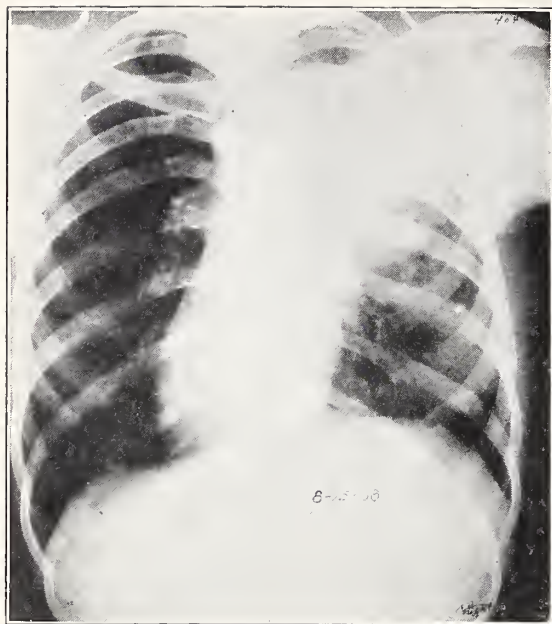


Fig. 5. Case IV. Unmarried, white woman, age 27, admitted Aug. 1938 with tuberculous lobar pneumonia right upper lobe. Became suddenly ill three weeks previously with fever followed by cough and expectoration. Sputum highly positive. Temperature 103.

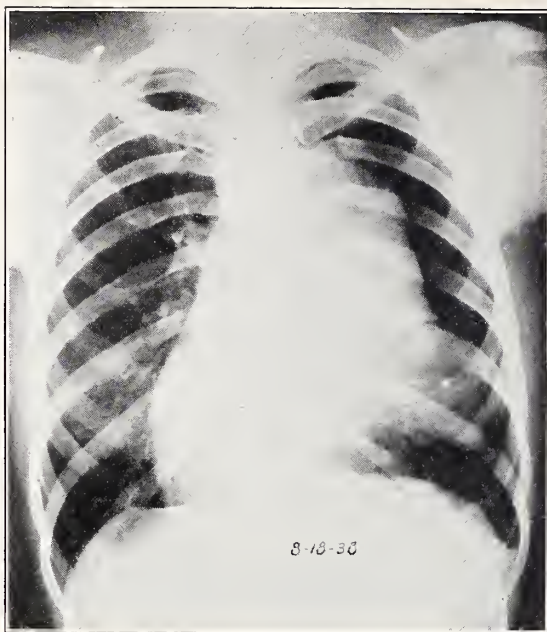


Fig. 6. Case IV. Same case as in Fig. 5 after induction of pneumothorax. Note that the pleura is free. This film taken three days after admission. The patient is now afebrile and the sputum is negative.

highly positive for tubercle bacilli; sedimentation index, 26 mm in 30 min.; temperature 104 to 106. Patient delirious at times. He was kept on absolute bed rest for ten months. Temperature gradually reduced until it was 99.6 to 100 at time of discharge. The patient was fed by a nurse and not permitted to sit up during the first six months. Fluid formed after the first two months and the cough diminished somewhat. It was deemed advisable to leave the fluid *in situ* rather than attempt pneumothorax. The patient was tapped twice, however, and small amounts of the effusion were removed and replaced with air. The fluid was clear and apparently innocuous.

In June, 1938, the patient was transferred to another hospital. Although emaciation was extreme and weight gain slight there was noticeable and definite improvement.

Case III. Housewife, age 23, white, admitted July, 1937, from a general hospital with diagnosis of tuberculous pneumonia. Had been ill two months. Temperature had previously been 103 to 104 but was 99.6 on admission. Sedimentation index, 28 mm in one hour. X-ray (Fig. 4) showed acute tuberculous pneumonia of lobar type. After one month in hospital, during which time there was a further reduction of temperature to normal, pneumothorax was started and satisfactory collapse resulted. The sputum, which had been positive, was converted. The patient was discharged in six months much improved and symptom free.

Weight gain of 15 pounds. She is now ambulatory and doing a little work. Returns bi-weekly for refills.

Case IV. Unmarried, white woman, bookkeeper, age 27, admitted August 1938. Had been ill three weeks. First symptom was fever. This was followed by cough and expectoration. Admission temperature of 103 with sedimentation rate, 30 mm in 40 min. Had lost 12 pounds in weight and was having night sweats. Sputum, highly positive for tubercle bacilli. X-ray film (Fig. 5) showed pneumonia involving upper lobe. Pneumothorax was instituted at once and surprisingly enough there were no adhesions, (Fig. 6). Although it is too early to predict the outcome of this case, a poor result would be unexpected.

SUMMARY AND CONCLUSIONS

1. Tuberculous pneumonia has been discussed with the presentation of four cases.
2. The disease is characterized by high fever, rapid and extreme loss of weight and loss of strength, these symptoms being due to the exudative and necrotizing effects of the tubercle bacillus on tuberculin-sensitive lung tissue.
3. If the disease is unilateral the patient's chances of recovery are vastly better than if both lungs are involved.
4. Absolute bed rest combined with early pneumothorax is the treatment par excellence.

THE SURGICAL TREATMENT OF PULMONARY TUBERCULOSIS

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The surgical treatment of pulmonary tuberculosis is based upon the idea that the healing of cavities within the lung will be facilitated by measures which will exert pressure on the outer surface of the lung and also restrict the constant motion of the lung. Ordinarily an abscess in the soft tissues heals readily after the evacuation and drainage of its contents because the walls of the abscess fall together and become united by fibrous tissue. In the lungs, however, it often happens, especially in tuberculosis abscesses, that even though drainage is accomplished through the bronchus and the trachea, the walls of the cavity are prevented from uniting by the fact that adhesions between the lung and a rigid chest wall keep the walls of the cavity separated from each other.

Nature attempts to collapse a cavity in a diseased lung by narrowing the intercostal spaces and elevating the diaphragm on the affected side. However, nature's method takes months and years to bring any appreciable results in most cases. The disease is apt to spread into healthy lung and the danger to others is continued indefinitely. The end result in most cases is a thick-walled cavity with many pleural adhesions which prevent the application of pneumothorax.

A cavity is always a very dangerous complication in pulmonary tuberculosis, and the modern method is to collapse a lung which is not healing satisfactorily even though a cavity is not visualized by x-ray. Frequent x-ray films on early cases of tuberculosis are of great importance and prompt collapse of the diseased lung should be instituted if the lesion does not show definite clearing. Barnes and Barnes¹ found that 1,244 (85%) of their 1,454 patients with cavities died within three years after admission to their institution, the average length of life being a little more than one year. Of those patients 88% with cavities from one to two centimeters in diameter died within three years. It is true that from 10% to 30% of cavities will close spontaneously after prolonged bed rest. It is also true that it is impossible to determine which cavities will close spontaneously, and the best treatment is to attempt artificial closure of any cavity as soon as it is diagnosed.

The age of the patient is an important factor in the treatment because pulmonary tuberculosis in young adults is particularly virulent. Dr. Harry D. Chadwick, health commissioner of Massachusetts, gave some interesting figures in this regard at the Mississippi Valley Conference on Tuberculosis, St. Louis, Missouri, September 23, 1938. "In a ten-year survey of the Massachusetts schools 400,000 children were tuberculin tested. Twenty-five per cent reacted to the tuberculin. 103,000 chest x-rays

were taken. Pulmonary tuberculosis was found in 261 or 1 in 1,500 children tested or 1 in 380 of the reactors. The incidence of pulmonary tuberculosis in the elementary grades was only 1 to 3,300 and he concluded the testing of that group is not warranted. In the high school group the incidence of pulmonary tuberculosis was 1 to 690. In the 119,000 reactors a contact history was elicited. In the contact reactors 1 in 80, or 1.13%, had pulmonary tuberculosis. In the non-contact reactors 1 in 1,100, or .091%, had pulmonary tuberculosis. From this he concluded that x-ray examination of the contact cases is the most important feature of survey work. In the contact group 20.4% showed a primary x-ray lesion and in the non-contact reactors 3.31% showed a primary x-ray lesion. The primary lesion consisted of enlarged hilar glands and calcified areas. The later development of pulmonary tuberculosis was five times more frequent in the reactors with x-ray evidence over those without x-ray-proved primary lesions. In 443 cases a diagnosis of pulmonary tuberculosis was made by x-ray examination. 72.5% of these had no symptoms and no rales were heard. During a three to six-year period of observation with x-rays at least yearly 63% of these cases showed a spread of the disease and 35% died. Three hundred and twenty patients between the ages ten to eighteen were treated at the Westfield State Sanatorium, Massachusetts, from 1920 to 1933. Ninety-seven were boys and 224 were girls. A recent check-up was made on all but twenty-one who could not be located. Of the whole group 234 had parenchymal lesions but no cavity was visualized. The mortality in this group was 58%. Eighty-six had cavities on admission and the mortality was 73%. In the total group of 320, 62% were dead, 14% under treatment, 17% well and 7% not traced. The treatment prior to 1933 was prolonged bed rest supplemented by pneumothorax in a few cases. The present method is to induce collapse of the diseased lung as soon as possible after admission."

My own experience is similar to this and it should be strongly emphasized that pulmonary tuberculosis in young adults is a fatal disease in the majority of cases if bed rest alone is depended upon. These cases should have pneumothorax or at least a crushed phrenic nerve on the affected side within a short period after diagnosis. These cases should be placed on absolute bed rest for thirty to ninety days and x-rays of the chest taken every two to four weeks. If definite improvement is not demonstrated, the collapse treatment should be started. In a survey made by the National Tuberculosis Association it was found that 50% of patients discharged from American sanatoria were dead within five years after discharge. It was also shown that about 75% of patients admitted to American sanatoria were

¹H. L. Barnes and L. R. Barnes: The Duration of Life in Pulmonary Tuberculosis with Cavity. *American Review of Tuberculosis*, 1928: 18-412.

in the far advanced or moderately advanced stage of the disease. Collapse therapy is used in all modern institutions, but it was used in only about 25% of their cases five years ago. At the present time some form of collapse therapy is used in 75% of their cases. The disease is arrested and thousands of lives are prolonged by this method, but it must be admitted that the treatment was started too late in a large percentage of the cases to secure recovery. In the advanced case adhesions have formed between the pleural layers which prevent good collapse by pneumothorax and the disease has often spread to other parts. The stethoscope will not reveal early tuberculosis in the majority of cases and our only recourse in patients having unexplained fatigue symptoms is a prompt x-ray of the chest with expert interpretation. It has been well said by Dr. Edward Rist, of the Laennec Hospital in Paris, that every case dying of pulmonary tuberculosis has been suitable for pneumothorax treatment in some stage of the disease. Dr. Rist's figures on a series of cases are convincing, but it must be remembered that they were mostly in the advanced stage of the disease.

PERCENTAGE OF RESULTS IN 759 CASES OF ARTIFICIAL PNEUMOTHORAX

		percent	
Healed	51	6.5	52 percent
Clinically well, symptom-free, working but still under treatment	336	45.5	
Conditions unchanged	33	4	48 percent
Bilateral (alive)	99	13.5	
Deceased	240	30.5	
Total	759	100	100 percent

CONDITIONS OF CONTROL—ADHESIONS PREVENTING PNEUMOTHORAX

Able to work	8	8.5	
Living in institutions (unable to work, conditions unchanged or worse)	35	37.2	91.4 percent
Deceased	51	54.2	

CONDITIONS OF CONTROL—REFUSALS PREVENTING PNEUMOTHORAX

		percent
Conditions unchanged	13	18
Worse	22	29
Deceased	39	53

Leslie and Anderson² reported results at time of discharge of 537 Michigan State Sanatorium patients who had been under treatment for more than six months and who had various forms of collapse therapy.

STAGE OF TUBERCULOSIS AT ADMISSION

	Minimal	Moderately Advanced	Far Advanced	All Stages
Number of Patients	35	191	311	537
	%	%	%	%
Arrested or Apparently Arrested	91.4	78.5	44.4	59.6
Quiescent	2.9	14.7	18.9	16.4
Improved	0.0	2.1	6.8	4.7
Unimproved or Worse	5.7	2.1	9.0	6.3
Dead	0.0	2.6	20.9	13.0

² Leslie and Anderson: Intensive Collapse Therapy in Pulmonary Tuberculosis, *The American Journal of the Medical Sciences*, Feb., 1937, Vol. 193, P. 149.

The different methods of surgical treatment are merely designed to assist nature in its efforts to obliterate cavities and put the lung at rest. These measures also alter the blood and lymph flow through the lung and favor the production of fibrosis and the healing of tuberculous lesions. The same forces are benefitted in lesions in which a cavity has not been demonstrated.

PNEUMOTHORAX

The simplest and safest procedure is artificial pneumothorax. This was first proposed by James Carson, of Liverpool, in 1821. Carlo Forlanini, of Italy, was the first physician to induce artificial pneumothorax and his article in 1882 contained many fundamentals in regard to it. John B. Murphy, of Chicago, reported the use of artificial pneumothorax in 1898. He worked without the use of a manometer and injected large quantities of air at the first treatment. The results were not particularly good because of his methods and the method was not used until about 1910 when it was taken up in a small way. It has only been used to a larger extent in the past 20 years. Hopeless cases were given the treatment at first but in the last few years it is being used in the early lesions. It is sound medicine to put a minimal case of tuberculosis on the rest cure. The case should have frequent x-rays and collapse of the lung instituted if definite x-ray clearing is not demonstrated. Cases with positive sputum should have collapse therapy if the sputum does not become negative in two months of absolute rest. Pneumothorax should be given by an experienced physician because the amounts of air, manometric pressures and intervals between refills are a matter of experience in handling each case. Pleural effusions are frequently encountered and vary in extent. About 50% of cases have some effusion during the course of treatment. These are harmless in most cases. The larger effusions should be aspirated and replaced with air.

In about 10% of cases the effusion becomes a tuberculous empyema and a thoracoplasty is often indicated. However, they may be handled in some instances by replacement with medicated oil. Spontaneous pneumothorax is a dangerous complication because the lung may be torn and pyogenic empyema induced. This is a very serious complication and difficult to combat. The fluoroscope should be used at each refill to determine the position of the collapsed lung, the amount of mediastinal displacement, and the presence of fluid. The effects on a cavity can also be determined but it is important to have x-ray films at frequent intervals in the earlier period of the treatment so that a permanent record of the progress of a case can be at hand. Frequent sputum examinations and blood sedimentation rates are helpful aids in following every case.

A rather large percentage of pneumothorax cases are complicated by adhesions between the

pleural layers. In many of these the adhesions will stretch enough for the cavity to be closed. However, in about twenty per cent of cases it is necessary to supplement the treatment by other procedures. In cases where the lung is adherent to the diaphragm and upper chest wall, a phrenic nerve operation will often be the method of choice. This stops the motion of the diaphragm and also relaxes the adhesions by raising the diaphragm from one to several inches. The cavity will close and the interval between the pneumothorax treatments can be lengthened. Less air at each refill is required after this operation.

PNEUMOLYSIS

Pneumolysis is another method of combating adhesions. This can be accomplished by the open or closed operation. The closed method is performed with a thoroscope and cutting electrode. A light in the 'scope will visualize the adhesions to be cut. The open method is preferred where there are many large adhesions to be severed. A piece of rib is resected and the operative field is well visualized. The surgeon can more easily control any bleeding points and is better able to free the lung of all adhesions. Smoke is quickly eliminated through the incision and vision is not obscured as sometimes happens in the closed method. Fluid usually forms after either type operation but is not a serious complication in most cases. It should be washed out with salt solution if it is causing toxic symptoms.

The operation of choice should be decided upon after consultation between the chest physician and the chest surgeon.

PHRENIC SURGERY

In many cases of pulmonary tuberculosis there are so many adhesions between the pleural walls that pneumothorax cannot be induced. In such cases, if the cavity is in the lower half of the lung, a phrenic nerve resection will often close it after several months have elapsed. This operation will not be very effective unless the diaphragm is quite freely movable. The permanent phrenic operation is chosen when a badly diseased lung is present. The crushing operation causes a temporary paralysis of the nerve lasting six months to one year. This is used in earlier more limited lesions and can be repeated or made permanent as required.

PNEUMOPERITONEUM

Pneumoperitoneum is the injecting of air into the peritoneal cavity and is used with good results in some cases where pneumothorax cannot be induced. It is particularly valuable when a phrenic has first been performed. In such cases the diaphragm will be raised several inches. The patient has very little abdominal discomfort and serious complications are rare. Fluid sometimes forms as in pneumothorax but rarely causes trouble.

EXTRA PLEURAL PNEUMOTHORAX

Extra pleural pneumothorax is the latest collapse procedure. It has been performed in a number of cases the past year. About six centimeters of the fourth rib posteriorly is resected and the fascia is dissected away from the parietal pleura by the hand. The top of the lung is shoved down and a space formed. The incision is sewed air tight and pneumothorax continued in the space. Several successful cases were shown at the San Francisco, 1938, meeting of the American Academy of Tuberculosis Physicians.

The same procedure is also used in making a paraffin filling. However, this is not used in cavities over four centimeters in diameter. Paraffin is apt to work its way down the chest wall and it is advisable not to use over 350 grams. Oleothorax is indicated in rare cases where a pneumothorax is discontinued and the lung will not re-expand. Gominol, olive oil and other oils have been used for this purpose. It is not a very successful procedure in most cases. However, it has been of benefit in some cases of tuberculous empyema.

THORACOPLASTY

This operation was first performed by Lausanne in 1885. It has been modified many times since with improving results. The present operation is performed in several stages and the first three ribs are entirely removed. The apex of the lung is freed and shoved down. In this manner it is possible to close vertebral gutter cavities which could not be closed by earlier methods. Subjects for this operation must not be much over 50 years of age. Their disease must be in abeyance, of a fibrotic nature, and a physiological balance in effect. The vital capacity should be adequate and the contralateral lung in good condition. The heart must be functioning in an adequate manner. The decision to operate should be arrived at after a consultation of the various physicians concerned. It is important that the trachea is retracted to the cavity side and the mediastinum more or less fixed. The blood picture should be within normal limits.

In a large series of thoracoplasty operations reported from several clinics, about 35% of the patients were symptom free from one to ten years after operation and 35% were dead. With better methods of operating and improved post-operative care, the symptom free group should be considerably enlarged. However, it must be remembered that a thoracoplasty is a major operation which is performed on a patient who has been ill for years with a chronic debilitating disease. This combination will always make us cautious in choosing cases for this operation. It should also cause us to choose a surgeon who is trained in the thoracic field. It is hoped that the day will come when pulmonary tuberculosis is always diagnosed and treated in earlier stages so that thoracoplasties will not be necessary.

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TUBERCULOSIS: WHERE DO WE GO FROM HERE?

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The National Tuberculosis Association was organized in 1904 and marked the date of a mass fight against this disease. Progress was slow in the beginning as it took many years to arouse the public and thoroughly organize all the states, counties and cities.

Indiana began to move in 1906 and 1907 and gradually forged forward until today we have an organization second to none. The tuberculosis death rate in Indiana in 1907 was 176.5 per one hundred thousand. In 1935, 1936, and 1937 it was respectively 50.2, 48.7, and 47.4 per one hundred thousand.

This disease ranked first as a cause of death in 1907; today it ranks seventh. A superficial study would indicate that we had the disease under control and could rest on our laurels and coast on to complete victory. This is not true, as a thorough study shows that the disease still leads as a cause of death during the productive years, between 15 and 40. The yearly decline in death rate has slowed up during the past few years, and even has increased in some localities. This may be explained by the depression and the recession with their accompanying poverty and crowding, but are we sure that is the correct answer or have we reached the end with our present methods? If the latter is true, then we must develop new methods for continuing the fight to a finish.

Early in the organized fight we started building sanatoriums, and the first ones were cheap, flimsy affairs as we thought the fight would soon be over and expensive buildings would not be necessary. Time and experience soon showed us that this was a mistake and we began to build modern fire-proof hospitals equipped with up to date surgeries, laboratories, and x-rays. We learned that patients could recover under comfortable surroundings.

In the early days our sanatorium patients were nearly all moderately advanced or far advanced and this is still true. The death rate under rest cure alone was very high for these patients but with the development of the different surgical procedures, such as pneumothorax, pneumolysis, thoracoplasty, phrenic paralysis, etc., for producing collapse of the diseased lung, their chances improved tremendously.

These procedures began to be used generally between 1915 and 1920 and since then thousands of patients have become arrested and gone back to work that formerly would have been allowed to die, and thousands of others have had their lives prolonged. This work has undoubtedly been a large factor in reducing the death rate during the past twenty years and sounds very fine, but the sad part of it is that the disease was not recognized in the first stage when ninety per cent recover without appreciable damage to their lungs.

All patients requiring surgical treatment suffer some destruction of air cells from the disease and the treatments. At times as much as an entire lung is destroyed by the time arrest takes place. These patients are crippled to that extent and must often lead a sheltered life.

We are not surprised when we read that most of the sanatorium patients twenty-five years ago were advanced cases, but we are surprised when we read that sanatorium records today show that only about fifteen per cent enter in the first stage. Who is to blame for this state of affairs? The family doctor is to blame if the patient comes to him and he strings along for six months or a year and then finds, or someone else does, that the patient has advanced tuberculosis. What about the patient who doesn't consult the doctor until the disease is advanced; are we, the medical profession, entirely free of blame here? Have we done all that we should in educating our patients regarding the dangers of this disease or are we leaving all that for some lay organization, and then complaining about State Medicine? How many of us call up our families and tell them to bring in their children for smallpox vaccination, diphtheria, scarlet fever, whooping cough immunizations and Mantoux testing? Shouldn't we be doing these things?

We believe that every family physician should be familiar with the Schick, Dick, and Mantoux tests, know what they mean, use them in daily practice, and explain just what they mean to his families.

The tuberculin patch test (tuberculin applied with adhesive tape) is being advocated by some because of its simplicity, and it may be a valuable addition, but I would like to see it compared with the Mantoux test in a large series of cases before adopting it.

The tuberculosis associations, national, state, and county, are lay organizations including in their membership many physicians and practically all of those who are spending their entire time in the study and treatment of this disease. These men and women have had a large part in guiding and directing the work and keeping harmony with the medical organizations. These organizations have done the pioneer work in educating the public regarding the dangers of this disease, manner of spread, value of early diagnosis, sanatorium treatment, and the newer surgical treatments for certain types. Their work still goes on as there are many problems yet unsolved, among which are the following:

1. How to reach one hundred per cent of patients during the first stage instead of fifteen per cent as at present.
2. Solve the problem of the manner of development of the adult type of disease.

3. The primary or childhood type of infection. Is this a menace as many think or does it carry some measure of protection and immunity as we thought twenty years ago?

4. If we eliminate the disease completely as we are trying to do, will we be in danger as a race because of lack of immunity, and must we develop some method of artificial immunity to take its place?

5. The hunt for a drug cure or an immunizing agent.

At the present time we are carrying on an intensive campaign of Mantoux testing of children and adults, with x-ray of positive reactors. The Mantoux test is inexpensive and eliminates sixty to eighty per cent from further expense. The test has two objectives. First, to protect the individual tested and, second, to lead back to the homes of reactors for contact cases.

As a colored student expressed it in an essay upon this subject some years ago, "Every freshman should have the Mantoux test and if it is positive, his father and mother should have an examination and x-ray of chest." This student had caught the vision of the possibilities of this test; a test that is not one hundred per cent perfect, but until we can afford to x-ray everybody it has many practical, economical advantages and we hope it will aid us in our search for the minimal cases. Persistence and time will be required and the cooperation of the family physicians. They must be taught to use these weapons.

The manner in which the tubercle spreads in the body has not been completely determined. We are pretty much agreed about the primary or childhood infection as the x-ray gives a rather clear picture of just how it happens when the germ enters by way of the respiratory tract and lodges in the terminal air cells, where they are picked up by the lymphatics and carried inward to the hilar glands. As healing occurs a calcified nodule develops at the point of entrance. When the first infection enters by way of the intestinal tract or tonsils, the picture is not so clear.

When the active, adult type of disease develops we have a complicated picture and it is not surprising that there are many different opinions. Many believe that it is always exogenous—a new infection from without—while others just as fervently believe that it is always, or nearly so, an endogenous infection. For some reason the old primary or childhood infection lights up and spreads. Dr. James Alexander Miller discussed these questions very thoroughly in an article in *Journal of the American Medical Association*, July 9, 1938, entitled, "Some Unsolved Problems of Tuberculosis." The writer leans toward the endogenous mode of spread but realizes that there are many questions yet to be answered before we can speak with authority.

Twenty-five years ago many of us believed that a childhood infection, if healed, conferred some

protection against the adult disease, but since Myers began asking questions and presenting evidence to the contrary, we are not so sure. Immunity and allergy in tuberculosis are not clear pictures at the present time.

Twenty-five years ago we were using tuberculin extensively in diagnosis and treatment and many thought they could confer immunity with it but results did not substantiate this view. Following the World War the pendulum swung against tuberculin for a time. It was almost heresy to mention tuberculin, especially as a remedy, at a tuberculosis meeting and the younger physicians were made to feel that it was a dangerous remedy, especially those who served in the army during the World War and came under the influence and teachings of Bushnell. The writer has used tuberculin for nearly thirty years and has never seen any dire results when used properly. It never had any place in the treatment of active open pulmonary cases and no doubt many such were treated by inexperienced men who were not able to classify their cases.

During the past ten years we have seen tuberculin come back into use as a diagnostic agent, but no immunizing effect has ever been proven on animals. At the present time much work is being done with B C G, an attenuated live germ which seems to have some immunizing power, but just how effective it will be will require years of study. If Myers is correct in his belief that all primary or childhood infections are dangerous and should be prevented, and if Bushnell was correct in pointing out the dangers in a tubercle free community from stray contacts, then something like B C G may be necessary to immunize as we do against smallpox, diphtheria, etc.

No discussion of the subject would be complete without mentioning the social-economic factors. This disease thrives under poverty, ignorance, filth, and poor housing. Give the American working man steady work at good wages and you have done as much or possibly more than all the tuberculosis organizations in the country in reducing the mortality from this disease. Statistics show that the highest death rates are in the low income groups and unless we can improve their incomes and living conditions, the outlook for eliminating this disease in the near future is not bright.

SUMMARY

Summing up the situation as we see it today and pointing the way into the future:

1. Continue the work that has accomplished so much in the past thirty years. More sanatoriums until there is a bed for every open case. Surgical collapse treatment for every suitable case to make them sputum negative before discharge to their homes. Intensive educational work to reach all the people with correct information about the disease.

2. Intensive case finding work with Mantoux test and x-ray in schools, factories, and homes.

This is the work that we hope and believe will aid in finding the minimal cases before serious harm has been done and when chances of cure are very good. To succeed this will require persistent work on the part of all tuberculosis organizations, health departments, schools, and physicians.

3. Continue our studies of the tubercle germ and its manner of spread until we have all the correct answers, for in knowledge there is strength. Also continue studying allergy and immunity with

the hope of some day finding a successful immunizing agent or a drug cure. This may seem to many an impossible task, but how often have we seen the apparently impossible come to pass!

4. Last but not least, do what we can as citizens of this great country to bring about that millenium when every person that needs a job can find one at a living wage. When that time arrives there will be no question about the conquest of tuberculosis.

THE FUTURE OUTLOOK IN TUBERCULOSIS

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Tuberculosis is probably the oldest of all known diseases. Records reveal that the Chinese had a definite treatment for tuberculosis 2,000 years B. C. However, little progress was made in treatment and cure until after the discovery of the bacillus by Robert Koch in 1882. Following this, about twelve to fifteen years, Forlanini made use of collapse therapy, namely, pneumothorax. This procedure came into general use in the United States about 1915.

In the early part of the present century, concentrated effort was made by several physicians meeting and organizing what is now The National Tuberculosis Association, combining both medical and social agencies with the slogan, "No Tuberculosis in Twenty Years." (Reorganization took place in 1910.)

At the time of the physician's group organization, the death rate per 100,000 was well over 200, which, through concentrated effort, has been reduced to around 50. Much success is to be attributed to collapse therapy—namely pneumothorax, phrenicotomy, pneumolysis, and thoracoplasty with the early pioneering of Brauer and Sauerbruch, and the improved technic at the present time has materially helped the far advanced case.

One of the difficulties of eradicating tuberculosis is its insidiousness or slow onset; it may have a fairly good grip on the individual before he is hardly aware of the danger that exists.

Some of the early signs that the individual should recognize are: loss of weight, weakness, cough, expectoration, hoarseness, shortness of breath, fever, loss of appetite, rapid pulse, pain in the chest. All, or a few of these signs or symptoms should be sufficient reason for the individual to consult his family physician and then have him (the family physician) recognize that all these, or a few of them, may mean tuberculosis, and either confirm or deny the same early in the process of elimination.

We have in the United States over 1,500 tuberculosis societies which have done a wonderful piece of work.

Tuberculosis has taken sixth to seventh place in the list of mortality statistics, but still heads the list in deaths between the ages of 15 and 35 years.

We cannot rest on our present laurels. The remainder of the work must have highly concentrated effort if we are to materially lessen this figure of 50. This, in my opinion, can be accomplished, with marked reduction in our present death rate, as follows:

With our government eager to improve general living conditions so that malnutrition and other predisposing causes may be reduced to a minimum;

With our public schools and colleges emphasizing the simple hygienic rules for prevention of tuberculosis;

With increased interest in experimental research work being sponsored by The National Tuberculosis Association;

With more emphasis to our undergraduate medical schools on thorough interpretation of physical examination, x-ray, and simple laboratory tests, so that no graduate will leave school without the fundamental training in tuberculosis;

With the elimination of the patient's fear of tuberculosis so that he will ask his physician's advice and seek early treatment;

With the general practitioner making more than the perfunctory chest examination recognizing lung pathology, having x-rays with an understanding interpretation and complete laboratory tests;

With all the health agencies (both official and non-official) exerting combined efforts through education of the general public to the prevalence of tuberculosis and methods combating it with its social and economic consequences;

With increased hospital beds for care of the tuberculous for at least the minimum standard of one and one-half bed for each death;

With the medical fraternity keeping abreast with the newer methods of diagnosis and treatment;

With the federal and local government interested in the rehabilitation of all, especially the tuberculous sick, inasmuch as there is pending legislation providing maintenance for the tuberculous sick during his training period.

SUMMARY

1. There should be more complete segregation of tuberculous patients in hospitals.

2. Better protection and the building of physical resistance on the part of those, especially chil-

dren, who have had continuous contact with active tuberculous cases.

3. Improve the general standard of living, especially in regard to nutrition. Creation of a county health unit under the direction of full-time trained health officers, with additional emphasis in medical practice on the prevention of disease. Complete co-operation of official and voluntary health organizations in education of the American public.

Let us, the medical profession, realize the im-

portance of educating our communities to the seriousness of this disease, with the knowledge of what has been accomplished by our incentive and encouragement for renewed efforts in the future. The medical fraternity plays the most important part.

With the combination of the above enumerated paragraphs, it is reasonable to assume that in the future tuberculosis may be relegated to its place alongside of typhoid and smallpox.

EVENTRATION OF THE DIAPHRAGM FOLLOWING EMPYEMA

(CASE REPORT)

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Eventration of the diaphragm is congenital or acquired. The congenital form is said to be due to failure of development of the muscle element or of the phrenic nerve. The acquired type is occasionally seen as a complication of the acute infectious diseases, or following injuries of the phrenic nerve. There is no defect or hole in the diaphragm; it is relaxed and atrophic, and expands upward, displacing the contents of the thoracic cavity.

The diagnosis of eventration usually rests upon x-rays because the syndrome often simulates that of other organic diseases, the most common of which are cholecystitis, gastric ulcer, heart disease, and, of course, diaphragmatic hernia. The x-ray will usually make the diagnosis certain.

The symptoms may be only those of intestinal obstruction, respiratory distress, or disturbance of circulation due to the pressure exerted on the lung and the displacement of the heart.

This case is reported because it must be of the acquired type, and because the symptoms are those of acute pyloric obstruction.

J. Y., a male, age 8 years, was seen at home, February 3, 1932. He had had the usual childhood diseases and apparently always had been healthy until January, 1931, when he developed pneumonia of the left lower lobe, followed by an empyema of the left pleural cavity. (X-ray studies at this time gave no signs of eventration.) The empyema was drained by rib resection and the child made an uneventful recovery. He was examined several times during the summer of 1931, with the usual physical findings of a thickened pleura over the left lung.

In September, 1931, he had an attack of vomiting without apparent cause. He had several of these attacks during the fall months, each attack apparently worse than the previous one. These attacks were thought by the mother to be a slight digestive disturbance and of only minor importance. The final attack lasted four days before a physician was called. The child had at first vomited stomach contents, then mucus, and later blood and mucus.

Examination: An anemic boy seven or eight years of age and of slight build, vomiting at intervals of fifteen to thirty minutes. The vomitus contained only blood and mucus. There was no

pain or distress except during the paroxysms of vomiting. The temperature was 98%, pulse 80, respiration 22. The skin was dry and there was considerable thirst. The abdomen was soft, with no masses or rigidity, and with slight general tenderness. Rectal examination showed nothing abnormal. The chest on inspection was apparently normal. Percussion developed moderate dullness below the fourth rib on the left side. Over this area there was a decrease in the vocal and tactile fremitus, diminished breath sounds, and spoken and whispered voice sounds were considerably decreased. The blood count was 16,000 with 75% polymorphonuclear leukocytes. The urine was normal. The bowels were moved with a normal salt solution enema. Everything by mouth was withheld. Morphia grs. $\frac{1}{16}$ and 2 ounces of normal saline were given by rectum every two hours. The next morning the mother inadvertently gave him food with an immediate recurrence of vomiting.

That morning, February 4, 1932, he was removed to the x-ray laboratory where a flat plate of the chest and upper part of the abdomen showed a dome-shaped mass extending to the level of the fourth rib on the left side. The heart was displaced to the right. A fluoroscopic examination and a plate following a barium meal did not leave the diagnosis long in doubt. There was an acute angulation of the pylorus through which no barium passed. The patient was hospitalized, and kept quiet with morphia. Body fluids were maintained with intravenous solutions of normal saline and of glucose until the tenth of February, when a laparotomy was performed by the consulting surgeon. The stomach at operation was located high up under the diaphragm approximately in the same location as shown in the x-ray studies. The stomach was brought to a slightly lower position than normal by traction and sutured to the anterior abdominal wall and the abdomen closed.

The recovery was uneventful. The patient gained four pounds over his previous weight within three months. Occasional observations over a period of eight months showed him to have no symptoms of recurrence. Further x-ray studies were unavailable, since the family moved to Alabama. However, relatives have reported to the effect that there has been no recurrence since the operation in 1932.

COMPLETE RUPTURE OF THE UTERUS*

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An obstetrician may go many years without seeing a single case of rupture of the uterus, yet the very life of the patient will depend upon prompt recognition and treatment if this accident occurs. In a vast obstetrical experience of forty years, DeLee¹ has seen eighteen personal cases, eleven of whom died. Hurd² states that Munro Kerr lost eight out of ten mothers in his own cases and that Cragin reported a maternal mortality of 26 out of 30 patients. Just how many mothers die each year in this country from rupture of the uterus is impossible to determine, for certainly many die with the true condition unrecognized.

For the incidence of this complication, we have to look to the reports from the large maternity hospitals. The incidence given by them is not a true criterion of occurrence, as the majority of these cases have been referred from outside sources. Table I gives the incidence in some of these reports:

TABLE I

Hospital	Cases of Ruptured Uteri	De- liveries	In- cidence
Moscow Maternity Clinic	124	118,581	1-956
Maternity of Bucharest	77	.....	1-300
Royal Maternity Charity of London	8	48,996	1-6,124
Rotunda Hospital, Dublin	34	57,412	1-1,689
Toronto General Hospital	3	3,973	1-1,324
Boston Lying-in Hospital	26	47,554	1-1,829
Womens Hospital in New York	9	17,500	1-1,944
New York Lying-in Hospital	184	147,625	1-802

The purpose of this paper is to review the subject and to give our experience at the Coleman Hospital of Indiana University. Since the founding of the hospital in 1927, there have been six ruptured uteri in slightly more than 9,000 deliveries, an incidence of 1 to 1,500. Of these ruptures, all of which were complete, there were four following previous cesarean sections and two traumatic ruptures, giving an incidence for the latter of 1 in 4,500. As both cases of traumatic rupture were cared for on the service of the senior author, these will be described in detail.

By complete rupture we mean that the tear has extended into the peritoneal cavity. We may divide this condition into three types: (1) those ruptures occurring spontaneously during pregnancy or labor in formerly intact uteri; (2) ruptures occurring in uteri upon which previous operations have been done, usually cesarean section or myomectomy;

and (3) ruptures which are the result of external violence or internal operative procedures.

Type 1 is a very rare condition, type 3 less rare, and type 2 the most frequent. No cases of type 1 have occurred in this institution. It is of interest to note that Stander³ quotes Davis⁴ as reporting a maternal mortality of 68.75 in those cases of complete rupture, excluding those in which the rupture occurred through a cesarean scar; while in 24 cases with rupture through a cesarean scar the figure was 12.5 percent. Our experience is given in the following reports:

RUPTURES OCCURRING IN WOMEN HAVING HAD PREVIOUS CESAREAN SECTION

Case I: (Hospital Number C-5471) Mrs. M. P., age 27, para II, was admitted as an emergency April 4, 1930. She had had a classic cesarean in 1928 at another hospital. The reason for the cesarean was unknown. At the time of admission the patient was six weeks from term. Labor had started four hours before but had ceased at the time of admission. She was in a mild degree of shock; however, pulse was only 85, temperature 98° and blood pressure 95/60. No fetal heart tones could be heard. There was general tenderness over the lower abdomen and a small amount of vaginal bleeding. A diagnosis of rupture of uterus with dead fetus was made and she was operated upon April 6th. The uterus was found to be ruptured at the site of the old cesarean scar, the placenta, fetus and membranes being found in the abdominal cavity. These were removed and a subtotal hysterectomy and right salpingo-oophorectomy performed. The following day the patient was transfused with 500 c.c. of whole blood. Post-operative course was uneventful and she was discharged from the hospital April 26, 1930, on the twenty-second post-operative day.

Case II: (Hospital Number C-10,159), Mrs. C. F., age 20, para III, was admitted as an emergency on October 23, 1931. Her first pregnancy terminated in a full term normal delivery. Her second pregnancy ended with cesarean section, with no known indications, at term by a general surgeon; it was not done at this hospital.

Upon admission she was at about the seventh month of her pregnancy. She was in shock, covered with perspiration, pale, and pulse 136, weak, and thready. Blood pressure was 50/10, temperature 103.4 (rectal) and respirations 34. She complained of slight pain in her back and 1½ hours previously

* From the Department of Obstetrics, Indiana University School of Medicine

¹ DeLee, Joseph B.: *Principles and Practice of Obstetrics*, Ed. 6, W. B. Saunders & Co., P. 810 and 820.

² Hurd, Ralph A.: *Spontaneous Rupture of the Uterus After Myomectomy*, *Amer. Jour. Obs. and Gyn.*, 26:889 (Dec.) 1933.

³ Stander, Henricus J.: *Williams' Obstetrics*, Ed. 71, p. 1140, D. Appleton Century Co., 1936.

⁴ Davis, Asa B.: *The Ruptured Uterus*, *Amer. Jour. Obs. and Gyn.*, 13:522, 1927.

she had had extreme pain described as like a "hot knife" in the midline of her abdomen. A firm, ballotable mass was found over the lower uterine segment, which felt too close to the abdominal wall to be intrauterine. Another mass, thought to be uterus, was found to the left of the midline extending to the umbilicus. The entire abdomen was tender but more so on the left side. There was slight vaginal bleeding.

A diagnosis of ruptured uterus was made and the patient immediately taken to the operating room. The abdominal cavity was found to be full of blood clots and a seven months fetus and placenta were removed from it. The uterus was contracted firmly and a wide rent was seen in its anterior aspect, corresponding to a classic section scar. Subtotal hysterectomy was done. The patient was in desperate condition on the table and was given intravenous glucose and a transfusion of 775 c.c. of whole blood. She had a febrile convalescence but was discharged in good condition on the twenty-second post-operative day.

Case III: (Hospital Number C-10,098) Mrs. M. R., age 24, para II, was admitted to the hospital as a private case of Dr. F. J. Hudson on March 22, 1936. She was two weeks from term. She had had a classic cesarean section elsewhere in 1934 following a trial labor of twenty hours and attempted forceps delivery. During the present pregnancy the patient had suffered considerable pain in the old scar. Upon admission she complained of constant and extreme abdominal pain, and in addition there were the intermittent cramp-like pains of uterine contractions. Fetal heart tones were present, pulse 102, temperature 99.8, respiration 24.

A cesarean section was performed immediately. After entering the abdominal cavity a clot of blood was found beneath the peritoneum. Adhesions between the uterus and the parietal peritoneum were present. A hole about one inch long was found near the upper end of the old uterine scar through which placental tissue extruded. An incision was made through the old uterine scar and a living babe removed. The placenta was removed and the uterus closed in layers after freshening the scar. Post-operative convalescence was uneventful and the patient was discharged in good condition on April 9, 1935, the eighteenth post-operative day.

Case IV: (Hospital Number C-7,890), Mrs. A. R., age 25, was admitted to the hospital as a private patient of Dr. D. L. Smith on December 22, 1936. She had had a classic section in 1930 in another hospital because of cephalo-pelvic disproportion. A second classic section was done at the Coleman Hospital on May 3, 1935.

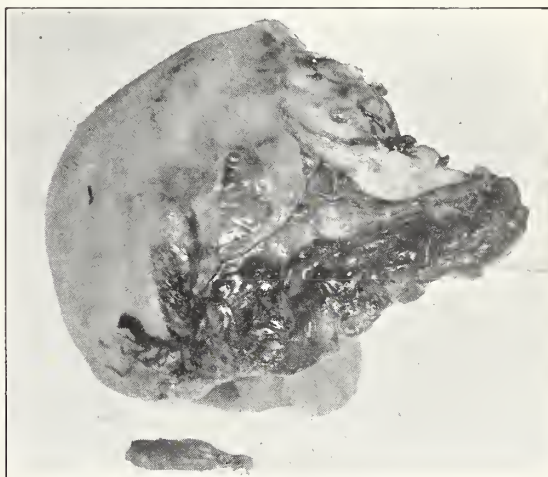
At the time of admittance patient was seven months pregnant, her estimated time of delivery being February 7, 1937. She complained of severe lower abdominal pain and hiccough. Approximately five hours before admission, after a day of washing, she suffered a sudden severe cramping

pain across the lower abdomen. This had persisted up to admission in spite of morphine. The constant pain was aggravated at intervals by cramps. The hiccoughs had been present for several hours. She was very weak. There was no vaginal bleeding; pulse was not palpable at the wrist; blood pressure was 74/60. The appearance was very pale and the extremities were cold and clammy. The fundus was 25 cm. high, the uterus in tetany, and no change was evident in its extreme firmness. Tenderness over the epigastrium and lower abdomen was present. The fetal heart was questionable. Rectal examination revealed the cervix about 3 cm. dilated and soft.

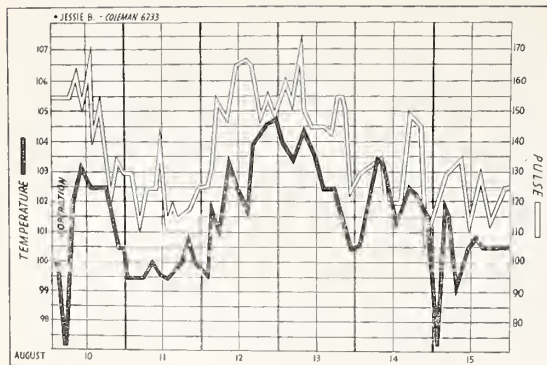
A diagnosis of ruptured uterus was made and laparotomy revealed the abdominal cavity to be filled with blood estimated at 3,000 c.c. The dead babe and placenta were found in the abdominal cavity. There was a rent in the uterus through the old cesarean scar extending from the fundus to the cervix. A subtotal hysterectomy was done. Acacia was given during the operation and 700 c.c. of whole blood given 1½ hours after operation. Two days later 500 c.c. of blood were given. Post-operative convalescence was uneventful, and the patient was discharged in good condition on January 8, 1937, the fourteenth post-operative day.

TRAUMATIC RUPTURES

Case V: (Hospital Number C-6,033), Mrs. J. B., age 27, was admitted to the hospital as an emergency at 7:45 p. m. on August 8, 1934. She had had three normal deliveries in 1928, 1930, and 1932 respectively, the babes ranging in size from eight pounds to ten and three-quarters pounds. This labor at term started at 3:00 a. m. August 8th. Her doctor examined her the morning of August 9th and did several internal examinations. At noon forceps operation was attempted for about two hours during which time the patient was under chloroform anesthesia and received three ampules of "shots to make the pain stronger." Upon admis-



Case V—The Uterus



Case V—Pulse and Temperature Curves During Operation and for the Next Five Days

sion the patient was apparently exhausted. Temperature was 100.6, pulse 166, and respirations 24. She was having continuous pain, was cyanotic and dyspneic. The skin was covered with perspiration. The entire abdomen was tender. No fetal heart tones could be heard. Fundus was 30 cm. There was slight vaginal bleeding. The head was very high and what appeared to be a badly torn cervix was present below it. No definite rent could be felt. The impression was ruptured uterus and was concurred in by two other staff men. She was given 500 c.c. of Hartman's solution and taken to surgery at 11:00 a. m. with pulse 160 and blood pressure 80/60. Under ether anesthesia a laparotomy was done. The peritoneal cavity contained considerable blood. The babe and placenta were found in the peritoneal cavity outside of the uterus. The uterus itself was about half amputated, being torn away from the vaginal attachments in the anterior portion. The anterior wall of the lower uterine segment was crushed and an opening extended from it behind the bladder and down into the vaginal vault. Amputation of the uterus was completed and the opening in the vaginal vault closed, leaving a soft rubber drain. The bladder was apparently intact. During the operation the patient was given an intravenous of 1500 c.c. of normal salt in 10% glucose. The blood pressure rose gradually to 114/70. The pulse became deep, full and regular at 160. The stillborn babe weighed 11 pounds, 10 ounces, was 55 cm. long and a caput was present in the region of the occiput.

Three hours after surgery, the patient was given a transfusion of 850 c.c. of whole blood. The next day because of tympanites continuous gastric lavage was started. On August 13, 1934, temperature was 105 and there was considerable drainage from the wound. The Levine tube was removed. On August 14th there were two liquid stools and flatus was expelled freely. The next day a transfusion of 350 c.c. was given. On August 17th there was some pain in the epigastric region and profuse, dark brown, serous vaginal discharge. August 23rd, the patient developed a unilateral parotitis and was given x-ray treatment for it the

following day. August 25th a vesico-vaginal fistula was suspected and confirmed by the immediate presence of dye in the vagina when injected into the bladder. Another 300 c.c. of blood were given. The abdominal wound was draining thick pus. The course remained septic and on September 8th there was a hard, indurated mass extending five fingers below the right costal margin. On September 10th a transfusion of 500 c.c. was given by the citrate method. The right flank was aspirated but no fluid obtained. On September 13th cystoscopy revealed a large area of the bladder floor to be missing. The right ureteral orifice was at the margin of the fistula. The abdominal wound was entirely closed October 6th. The patient was discharged on October 11th, the sixty-third post-operative day. On April 11, 1935, cystoscopy showed the bladder capacity to be zero, and revealed a large fistula in the posterior wall back of the trigone. This was later closed by surgical procedure and at the present time the patient is in excellent condition.

Case VI: (Hospital Number C-12,232) Mrs. L. H., age 42 and para 12, was referred to the Coleman by her attending physician on February 6, 1937. She was at term, her membranes having been ruptured five days. Two days before rupture of the membrane she had sharp uterine cramps and when first seen in the admitting room there was general soreness over the abdomen and back. Her past and family history were irrelevant except that all previous pregnancies were normal deliveries.

At the time of examination, abdominal palpation of the uterine mass revealed the ovoid to be transverse and firm. No small parts could be felt and no fetal movements or uterine contractions were



Case VI—X-ray of Abdomen Showing Transverse Position.

All previous sections were of the classic type. One traumatic case was due to attempts at forceps plus pituitrin and the other probably was due to attempt at version, though it is possible that a small rupture had occurred before admission. Neglected transverse presentation was a predisposing cause. In this case the report of the microsection was as follows: "Along the line of the tear one sees degeneration of the muscle, hemorrhage and leukocytic infiltration which change appears due to trauma rather than directly responsible for the weakness and subsequent tearing. One section shows along the site of the tear, a considerable degree of fibrosis and loss of muscular structure."

The more common causes of rupture will be considered as to prophylaxis.

Previous cesarean section: Patients having had previous cesarean section should be carefully watched during pregnancy. They must not attempt to have their babies at home and they should be under the supervision of well trained obstetricians. Patients who had definite wound infection following the first section *should be operated upon* before the onset of labor regardless of the indication for the original section. If the indication for the first section still exists, the patient should be operated. In other cases, the decision to repeat the cesarean will take into consideration the type of the first section and the manner in which labor starts. If delivery from below is decided upon, the labor should be carefully watched throughout by the obstetrician or a capable assistant.

Use of Pituitrin in the First and Second Stages of Labor: Many cases of rupture of the uterus have been reported following the use of pituitrin. In 1929 Mendenhall⁵ collected 89 such cases from the literature, the dose of pituitrin in one case being as low as 4 minims. We know that the strength of various preparations of the drug varies. Knowing the dangers of the drug it is amazing to find a large number of men practicing obstetrics who use the drug more or less routinely, entirely ignoring the warnings of obstetric teachers. Good obstetrics can be practiced without recourse to pituitrin or thymophysin in the first and second stage of labor. If this point could be imprinted on the minds of every doctor, the incidence of ruptured uterus would be materially lessened.

Version and Contraction Ring Dystocia: The operation of version was the type of delivery in 12 of the 17 cases of traumatic rupture at the Boston Lying-in, reported by Sheldon.⁶ In these cases at least two were accompanied by a definite contraction ring. In a third case with contraction ring, version failed and rupture followed attempts to push the head through the contraction ring. In

a series of 36 cases of contraction ring dystocia reported by McKenzie⁷, two of the six women who died, died of ruptured uteri.

In 12 cases of rupture reported by Seley,⁸ nine were of the traumatic type. Of these nine, four followed version and extraction and two followed breech extraction. One version was associated with a contraction ring as was one breech extraction.

Version, as any other obstetrical operation, should be done only when indicated and contraindications must be recognized. If the babe is known to be dead, version is contraindicated. The practice of some operators of doing routine version on the second twin is to be condemned. Above all, version is never to be done in the presence of a contraction ring. In the absence of disproportion, the ring, if present, is a contraction ring or constriction ring as Rudolph⁹ prefers to call it. Sedation is indicated as is glucose intravenously while Rucker¹⁰ recommends epinephrine in dosage of .3 c.c. of 1-1000 solution. Amyl nitrite inhalations have also been suggested. If, in the second stage of labor, the contraction ring fails to relax, deep ether narcosis may be tried and, if successful, delivery effected by the simplest means indicated in that particular case. However, in case of a persistent ring, Rudolph reports good results with continued conservative management. If mother or babe present a definite indication for termination, low cervical cesarean should usually be used unless the case has been badly mismanaged and, if so, the Porro operation.

In general, prophylaxis will include the proper management of the patient during labor. If rupture threatens, sedation and delivery effected when it can be safely done. In our opinion no patient should be left in the second stage longer than two or two and one-half hours, as a longer time predisposes to the formation of contraction rings.

RECOGNITION

In some cases where there has been a previous cesarean section, rupture may take place in the scar without marked symptoms. Usually, however, there will be marked tenderness and some abdominal pain.

Classic rupture of the uterus is characterized by severe pain and later often complete cessation of uterine contractions. Soon there are definite signs of hemorrhage and shock, the patient appearing to be stricken with a fatal disease with cold clammy perspiration, marked pallor, a marked drop in

⁵ Mendenhall, A. M.: Solution of Pituitary and Ruptured Uterus, *Jour. of Amer. Med. Assoc.*, 92:1341, (April) 1929.

⁶ Sheldon, Charles P.: A Record of 26 Cases of Rupture of the Uterus, *Amer. Jour. Obs. and Gyn.*, 31:455, (March) 1936.

⁷ McKenzie, Charles H.: Contraction Ring Dystocia, *Amer. Jour. Obs. and Gyn.*, 33:835, (May) 1937.

⁸ Seley, Abbey, David: An Analysis of 12 Cases of Spontaneous Rupture of the Pregnant Uterus, *Amer. Jour. Obs. and Gyn.*, 33:857 (May) 1937.

⁹ Rudolph, Louis: Constriction Ring Dystocia, *Jour. A.M.A.*, 108:532 (Feb. 13) 1937.

¹⁰ Rucker, M. P.: The Treatment of Contraction Ring Dystocia with Adrenalin, *Amer. Jour. Obs. and Gyn.*, 14:609 (Nov.) 1927.

blood pressure and rise in pulse rate. The amount of visible blood loss may be great or there may be none. The presenting part usually rises higher away from the inlet. Small parts may be easily left. Confirmation of the rupture is most easily made by an intrauterine examination with the gauntlet glove. To be sure of the earliest diagnosis, every difficult obstetrical operation from below should be followed by careful intrauterine examination, particularly so after version has been done.

TREATMENT

After rupture occurs and is diagnosed, no time should be lost. Immediate laparotomy is indicated if the patient is in the hospital. If a traumatic rupture has taken place the patient usually bleeds furiously and soon goes into shock so that she is a very poor risk. Hysterectomy is the operation of choice and drainage of the pelvis should usually be instituted. The anemia and shock must be treated and the patient transfused as quickly as possible. Some delay in getting a donor was experienced by us in the case of Case VI, as she was a type III. However, she was given acacia and glucose while awaiting a donor. We have given acacia many times in emergencies and have never experienced severe reactions such as those reported by Studdiford.¹¹

In treating any severe hemorrhage care must be taken not to give too much fluid before transfusion. This was recently emphasized by Dieckmann and Daily.¹²

After operation the patient will usually require more blood and progress will depend upon the extent and severity of the infection and resulting complications. In both our cases of traumatic rupture a definite mass was formed in the upper right quadrant. In one case this mass gradually disappeared and seemed not to be associated with the liver or kidney. In the other case, it proved to be a subdiaphragmatic abscess.

SUMMARY AND CONCLUSIONS

1. Six ruptures of the uterus occurring in 9,000 deliveries at the Coleman Hospital, an incidence of 1-1500, have been reported. Fortunately all patients recovered, morbidity being higher in the case of traumatic ruptures.

2. Prophylaxis and recognition have been discussed.

3. In rupture of the uterus, hysterectomy is the treatment of choice, accompanied and followed by blood transfusions.

508 HUME-MANSUR BUILDING.

INFECTIVITY OF CALCIFIED TUBERCULOUS LESIONS

Whether or not calcified foci from childhood infections with tuberculin are possible sources of endogenous reinfection in later life has been a disputed question for a half century. In 1884 Dejerine¹ studied calcified lesions in twelve tuberculous persons dying in the fourth, sixth, seventh and eighth decades of life. He failed to find tubercle bacilli in the calcified lesions. Material from four of these lesions was injected into guinea pigs with uniformly negative results. From these scanty data Dejerine concluded that the infectious agent disappears quantitatively from tuberculous lesions as soon as calcification is complete. Quite different results were subsequently reported by Rabinowitsch,² Schmitz³ and others who tested the guinea pig infectivity of thirty-two calcified foci from human necropsies and obtained positive results in seventeen cases.

Doubt as to the reliability of previous conclusions was afterward expressed by Griffith,⁴ who found that in 176 trials chronic tuberculous tissues failed to infect guinea pigs, although acid-fast bacilli were readily demonstrated by animal inoculation. By animal inoculation Opie and Aronson⁵ demonstrated tubercle bacilli in apparently noninfected portions of tuberculous lungs, suggesting that the alleged infectivity of calcified foci was due to slips in technic or unavoidable contamination of the calcified area.

Since there is at present no unanimity of opinion as to the probable infectivity of chronic tuberculous lesions, Feldman and Baggenston⁶ of the Mayo Clinic restudied this problem with the latest technical methods. Necropsy material was obtained from sixty-eight persons ranging in age from 7 to 90 years who had died from causes other than tuberculosis. Evidence of previous pulmonary infection with tubercle bacilli was obtained in all cases, the presumptive childhood tuberculosis appearing as encapsulated, caseous or calcified areas in the pulmonary tissues or the tracheobronchial lymph nodes. These encapsulated lesions were excised and emulsified in sterile sand and the emulsions thus obtained planted on two or more particularly favorable culture mediums. From two to six duplicate guinea pigs were inoculated subcutaneously with 1 to 2 cc. of each sample. All animals that died within twenty-one days were discarded, death presumably being due to primary or allergic toxicity of the emulsion or to nontuberculous virus or bacterial infection. The surviving guinea pigs were killed at the end of from eight to fourteen weeks and meticulously examined macroscopically, microscopically and culturally for evidence of tuberculosis.

Positive results were obtained in only one of the sixty-eight chronic tuberculous foci studied. In none of the other foci was the presence of tubercle bacilli demonstrated by either cultural or inoculation methods. The authors concluded from this evidence that in the majority of cases the "primary complex" in tuberculosis passes through an involutional process unfavorable to the continued viability of *Mycobacterium tuberculosis*. In their opinion endogenous reinfection from definitely capsulated, sclerotic, caseous or calcified tuberculosis of childhood is unlikely to occur.—Editorial, *Jour. A.M.A.*, Aug. 20, 1938.

¹ Dejerine, J. J.: *Compt. rend. Soc. de bio.* **36**: 560, 1884.

² Rabinowitsch, Lydia: *Berl. klin. Wchnschr.* **44**: 35, 1907.

³ Schmitz, Eugen: *Frankfurt. Ztschr. f. Path.* **3**: 88, 1909.

⁴ Griffith, A. Stanley: *J. Path. & Bact.* **32**: 813 (Oct.) 1929.

⁵ Opie, Eugene L., and Aronson, J. D.: *Tubercle Bacilli in Latent Tuberculous Lesions and in Lung Tissue Without Tuberculous Lesions*, *Arch. Path.* **4**: 1 (July) 1927.

⁶ Feldman, William H., and Baggenston, Archie H.: *Am. J. Path.* **14**: 473 (July) 1938.

¹¹ Studdiford, William E.: *Severe and Fatal Reactions Following the Intravenous Use of Gum Acacia Glucose Infusions*, *Surg. Gyn. and Obs.*, **64**: 772 (April) 1937.

¹² Dieckmann, William J., and Daily, Edwin F.: *The Role of Blood Transfusion in the Treatment of Obstetric Hemorrhage*, *Amer. Jour. Obs. and Gyn.*, **30**: 1 (July) 1935.

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NOVEMBER, 1938

Editorials

THE INDIANAPOLIS CONVENTION

The 1,751 registrants at the eighty-ninth session of the Indiana State Medical Association were in common accord that this was one of the outstanding successes in our long history. Perfect autumn weather plus adequate facilities for the handling of large crowds had much to do with this signal success. The Indianapolis Medical Society had overlooked nothing that might add to the comfort and entertainment of its visitors, while the Indianapolis Convention and Publicity Bureau saw to it that all arrangements had been perfected in advance of the meeting.

The registration included 1,154 members, 268 physicians and student guests, 208 women guests and 121 exhibitors. The registration might easily have exceeded 1,800, for there were numerous women guests and physicians who failed to register.

As is customary, the first day was given over to the lighter side of convention activities, golf and skeet occupying the attention of those of our attending members with sporting proclivities. Boyd Burkhardt, of Tipton, turned in a low gross of 78, hence was proclaimed champion for the coming year. H. P. Graessle, of Seymour, had a low net of 60, while R. E. Lyons, of Bloomington, carded the high score of 130.

In the skeet shoot, H. W. Adkins, of Indianapolis, and C. W. Cullnane, of Evansville, carried off first and second honors; at the traps, Dr. Cullnane took first place, second place going to C. M. Donahue, of Carmel.

The smoker was held in the Egyptian Room of

the Murat Temple where entertainment was provided, and the needs of the inner man were not forgotten. During this part of the program, the winners at golf, skeet and at the traps were called up front to be awarded a list of prizes that resembled nothing so much as the stock of a high class sporting goods store.

In other parts of the rooms set aside for the diversion of the assembled guests, parties found pleasure in the pursuit of the Goddess of Chance, dallying with contract and other card games, not overlooking the old time pinochle, and an occasional table was devoted to the gentle art of guessing what the other fellow held, either in his hand or by way of unexposed card or cards.

The smoker was unusually well attended and a large proportion of the crowd remained until the late hours, evidence that this part of the entertainment program met with general favor.

Wednesday morning saw the opening of the scientific program, a crowded auditorium greeting President Baker as his gavel rapped for order. The presidential address proved to be one of the high spots of the convention. Avoiding the usual custom of reviewing the status of medicine in Indiana, Dr. Baker at once launched into a discussion of the internal affairs of the State Association. Long a student of medical economics, his extensive travels about the state qualified him as unusually competent to discuss the problems at present confronting Hoosier Medicine. His address was received with that sort of applause which means sincerity, and was generally regarded as one of the best opening addresses in the long history of the Association.

Following came the scientific general session, each of the guest speakers being accorded that attention due the leaders in our profession. Wednesday afternoon was given over to section meetings, each group having an unusually large attendance, and the interest manifested in the various programs once more proved the wisdom of holding section meetings at the annual conventions. Officers for the sections were elected as follows:

Medical Section: Chairman, B. G. Keeney, Shelbyville; vice-chairman, Walter Portteus, Franklin; secretary, John Warvel, Indianapolis.

Surgical Section: Chairman, Frank Ramsey, Indianapolis; vice-chairman, W. C. Wright, Fort Wayne; secretary, Joseph H. Clevenger, Muncie.

Section on Anesthesia: Chairman, Roy Geider, Indianapolis; vice-chairman, E. T. Zaring, Terre Haute; secretary, Lillian Mueller, Indianapolis.

Section on Ophthalmology and Otolaryngology: Chairman, B. W. Egan, Logansport; vice-chairman, Donald Dean, Rushville; secretary, Robert Dearmin, Indianapolis.

The annual banquet of Wednesday evening was another highlight of the convention. In the Murat Theater following the banquet, Rock Sleyster,

president-elect of the American Medical Association, was introduced and gave a masterly portrayal of "The Doctor." In his preamble, Dr. Sleyster waxed romantic in telling of his purchase of a copy of James Whitcomb Riley's "That Old Sweet-heart of Mine," and of presenting it to a lovely young lady who later became Mrs. Sleyster and who was sitting "down front," delighted at the reception accorded her nationally known husband. Dr. George E. Vincent, of Greenwich, Connecticut, was then introduced and talked on "The Pain of Thinking." An extraordinary speaker with an unlimited vocabulary, Dr. Vincent held his audience through every second of a rapid-fire talk that was filled with wit and humor. It was commonly remarked that no one ever before had used so many words and had each word in its proper place as did Dr. Vincent.

At the Thursday morning meeting of the House of Delegates, Dr. Karl Ruddell, of Indianapolis, was elected president for 1940. Dr. E. M. Van Buskirk will take his office as president on January 1, 1939. Delegates to the A.M.A. were elected as follows: Dr. George Dillinger, French Lick, and Dr. Homer G. Hamer, Indianapolis; alternates: Dr. A. S. Giordano, South Bend, and Dr. Walter Kelly, Indianapolis.

The Council appointed Dr. Edgar F. Kiser, of Indianapolis, and Dr. Lyman T. Rawles, of Fort Wayne, to three-year terms on the Editorial Board to succeed Dr. Ernest Rupel, of Indianapolis, and Dr. L. P. Harshman, of Fort Wayne. Dr. E. M. Shanklin, of Hammond, was re-elected editor of THE JOURNAL for 1939.

Fort Wayne was selected as the place of meeting for 1939.

With the closing of the general session Thursday noon, the eighty-ninth annual session of the Indiana State Medical Association came to an end. And the common comment heard was, "It was a great convention! See you in Fort Wayne next year!"

THE TREATMENT OF TUBERCULOSIS

The most satisfactory method of controlling any disease is prophylaxis. Active immunization early in life by artificial means represents the last word in efficient therapeutics. Experience has shown us that such a procedure is successful in smallpox, diphtheria, and typhoid. By the harmless technique of immunization, the patient is for all time protected against diseases which were once among the most dreaded scourges of mankind.

Next in efficiency among our therapeutic procedures is the specific treatment of certain diseases. Medical annals have no better example of this treatment than the recently perfected serum for pneumonia. Here a specific therapeutic agent, prepared for the treatment of a specific disease that

is caused by a particular organism, is the ideal method of treating the disease once the body has been invaded. The rush of anti-serum to a pneumonia patient or of antitoxin to a child with diphtheria is the daily task of the physician, the dramatic value of which is not exceeded by the most lofty speculations in fiction.

Other methods of treatment deviate from the ideal in various ways. The removal of an acute appendix followed by satisfactory and uneventful recovery of the patient may be considered the ideal in surgical treatment. From this point therapeutic procedures vary greatly in effectiveness. Generally speaking, the more methods there are of treatment the less effective is the therapy.

From immunization and specific therapy we pass to relative therapy which if not successful in curing is directed to the control of the disease, and while the patient is not freed from the pathology, the pathology may be arrested. Such are our present methods of treating conditions such as pernicious anemia, diabetes, heart disease, and tuberculosis.

One of the most effective examples of relative therapeutics and public health has been the marked decrease in the death rate of tuberculosis in the absence of a specific treatment. Many things have contributed to this decline in the mortality. The isolation of patients in sanatoria and hospitals, the general increase in the knowledge concerning the communicability of the disease, improvements in sanitation and hygiene for those who are cared for in private homes, the general use of rest as a method of treatment, and more recently the extensive application of collapse therapy to diseased lungs have made possible the control and frequently the arrest of tuberculous disease which hitherto was inevitably progressive.

This apparent success, however, does not offer a very satisfactory opportunity for the physicians to point with pride toward their accomplishments. The fact remains that at this time we possess no satisfactory method of prophylaxis and certainly no accepted specific treatment. Everything that is done in treating tuberculosis is a palliative procedure. Isolation of the patient is a palliative procedure. Rest is not a method of treatment recommended for tuberculosis alone but is the most satisfactory method of putting the patient in a favorable condition to heal his own disease. Isolation and hospitalization over a period of months and frequently years certainly leaves much to be desired in the treatment or control of any disease. The surgical procedures extending from pneumothorax to the more radical methods of thoracoplasty are themselves palliative and designed to attempt to effect control of the disease. If the patient is to obtain a cure resulting from his own resistance to the infection it will be accomplished only after months and years of patient and consistent effort. Lacking a specific treatment we try to help the patient to help himself.

It hardly need be pointed out that satisfactory methods of treatment of the infectious diseases that have been brought under control have been the results of physiological, bacteriological, and chemical studies. To date these studies have not given us the ideal treatment for tuberculosis, but we have not studied the disease so long that we should be discouraged. There are physicians still living who were in practice when the tubercle bacillus was discovered. It would seem appropriate that we should dedicate ourselves anew to long, diligent, and profound studies in the chemistry, bacteriology, and the physiology of this disease with the firm confidence that some time, some day, a specific cure will be discovered which will place tuberculosis alongside diphtheria, typhoid, and pneumonia.

SQUARELY BEFORE US!

The editorial entitled "Action!" in *THE JOURNAL* for October concluded with this paragraph: "The House of Delegates of the American Medical Association may act and the House of Delegates of the Indiana State Medical Association may act, but in the final analysis all of their resolutions and all of their elaborate programs to render service to patients will depend for their success upon each individual physician, and a thoughtful, sane, up-to-date, workable program, formulated and carried out by each local county medical society. Action by these official bodies will be useless if it is not maintained by action on the part of the individual physician." Thus do we have in a very few words the crux of the present economic state of the profession of medicine; thus most tersely is described the thing that is before us and just as tersely is stated what must be done about it and by whom.

The time for laying the burden on the A.M.A. or State Association headquarters is past. The whole matter has become the problem of the local county medical society—yes, of the individual members of the small groups. There is no alternative; there is no side-stepping. The issue, clean cut, stands before us and must be met. Our national and our state organizations have declared themselves in terms so bold that he who runs may read, and in the reading will quickly determine your responsibility and mine.

As we view it, now that official action has been had in the House of Delegates of the Indiana State Medical Association, backing up the recent action of the A.M.A. House (and this to the extent of just 100 per cent) the various component societies of Indiana should at once formulate plans for carrying out the recommendations of these official bodies. This work cannot be delegated to headquarters nor to any other county medical society. No common plan can successfully operate in all sections of Indiana. The plan that would meet the situation in Daviess County, for example, probably could not be made applicable in Allen County; each com-

munity has its special problems and the solution of these problems must come from within.

A few of our local societies are considering the solution of the problem by engaging a full-time, lay secretary; there is no question in our mind but that this will be a very great step in the right direction, but too many of our groups cannot consider such a thing for obvious reasons. However, something must be done, and that something must be done soon. Our acquiescence in a hospital insurance plan and in a voluntary sickness insurance plan has met with an almost universally favorable response by the lay press. This stand, we may say in passing, has made for us many friends. We cannot afford to alienate this new group of friends, hence it becomes our duty to take preliminary steps toward the desired end at once. This is not a job that can be put off; we cannot wait until the first of next year, when most societies install new officers, for this is a job which demands immediate attention. An interested public will not expect an immediate solution, but this same public, now well informed in the matter, most certainly expects us at least to take some preliminary steps. If we do not, the matter will soon be out of hand and we will have to make the best of it.

Every county medical society in Indiana, no matter how large or how small, *must* get going; a committee should be appointed immediately to study the local situation, not so much what some other county society has done, but just what is the thing to do locally.

Each one of the more than three thousand members of the Indiana State Medical Association owes it to himself, to Indiana Medicine of now and of the future, to interest himself personally in seeing that his local group takes immediate action of some sort. As we have said, next year may be too late; we can control the entire matter if we act **RIGHT NOW!**

MEDICAL FREEDOM

The Indiana State Medical Association deserves the support of the people in its admirable reconciliation of the questions which have come before the people and the physicians as a result of a federal move to establish some kind of socialized medicine. The Indiana physicians followed the policy laid down by the American Medical Association at its recent special session of the House of Delegates, but they have gone farther—they have contributed the Indiana preventive medicine plan to the country.

The main concern of the people is the protection of the physician, and the physician-patient relationship, from the blight of political regimentation. It is plain to every one that the public interest will be severely offended by any government system of disease prevention and healing which restrains the physician in the free use of his own judgment and the employment of proved methods. The possibility that the government might attempt to pre-

scribe systems of treatment, and even medicines, without regard for the whole range of the physician's professional service to his patient is abhorrent to the American sense of right and justice.

Recognition of the difficulties in which ill persons of limited means find themselves at a time when they are unable to exercise good judgment and when their earning capacity may be reduced by their affliction, is, however, fully within the scope of medical service, as the Indiana physicians demonstrated. They are willing to co-operate in a movement looking to the prevention and control of adverse health factors, and to do their full share to devise methods of bringing the benefits of good medical service to the indigent. More can not in fairness be expected of them. They have made their stand for the primary purpose—the general improvement of health and a further alleviation of the distress of illness among people of all groups.

—Indianapolis News, October 6, 1938.

THE MEDICAL SCHOOL REPORT

It seems that considerable misunderstanding is abroad concerning the report of the special committee appointed to study the recommendations of the Council on Hospitals and Medical Education of the American Medical Association regarding the Indiana University Medical School. In an interview attributed to the president of the Board of Trustees of the University, as published in the Indiana press, the mistaken impression seemed to prevail that the Indiana State Medical Association initiated the recommendation that the full four-year medical course be given in Indianapolis rather than having the first year in Bloomington. It is true that the report made this recommendation, but it should be borne in mind that the suggestion arose from the fact that the A.M.A. Council very strongly urged that this be done. In other words, this idea did not originate within our Association; our committee but studied the Council suggestions and reported their reactions. It is also true that the Association House of Delegates approved the report of this special committee.

Other suggestions of the Council were studied by the committee and with some of them it did not wholly agree. The urging of a full-time dean was not recommended, though the suggestion that the head of the Department of Internal Medicine be a full-time man was recognized as very wise. Just what can and will be done about the matter remains to be seen. The Council has spoken; the Indiana State Medical Association has answered, and for the nonce the subject is in status quo. In the meantime, a study of the present set-up may well be in order.

Only recently a medical unit said to be the very last word in efficiency has been completed on the Bloomington campus. Several instructors have been added to the already large staff of teachers there.

The floor space of the Bloomington unit has been trebled, this space having been arranged only after a careful study of some twenty of the leading medical schools of the country. Medical school authorities from many states have inspected this new building and its modern equipment, each pronouncing it as highly efficient. Particularly have they been impressed by the anatomical table set-up, for it is probably the most modern in the country.

One of the chief criticisms within our own state has been that too many out-of-state students are admitted to the freshman classes. Such criticism seems quite out of place when it is known that only three such were admitted to the present freshman class, and that of a total enrollment of 426 in the four classes for the current year, only 16 (less than four per cent) are from outside of Indiana. Furthermore, in the past ten graduating classes there were forty-nine out-of-state students, the percentage being 4.9, or a little higher than at the present time.

What is being done in other states in this regard? A recent tabulation, in the Educational Number of the *Journal of the American Medical Association* for August 27, 1938, page 668, indicates that of the seventy-seven recognized medical schools in the United States only two, the Ohio State University School of Medicine and the University of Texas School of Medicine, take no out-of-state students. Thirteen of these schools take more out-of-state students than does Indiana, our rank in the list being eighth from the lowest in the number of students so enrolled. The average for the entire group is more than 13 per cent of their total enrollment.

Some of our local authorities are of the opinion that more out-of-state students would materially add to the prestige of our school but that, of course, is a matter for debate.

That our school has a high standing is evidenced by the fact that for the current year there were more than 900 applicants for enrollment in the freshman course, and only 130 of these have been accepted. Among the list of candidates were men from Hopkins, Yale, Harvard and Columbia, each of whom had a "B" rating or better. Of the 130 accepted, only two were from outside of Indiana; surely that is not an objectionable number.

While it is not germane to the subject at hand, we cannot refrain from commenting upon the method of sifting this large grist of applicants. The method has been carefully studied and there can be no criticism of it.

THE JOURNAL is not undertaking the solution of any problems that may be confronting our medical school. We are, naturally, very much interested in its welfare and its doings and want it to be at the top of the heap. Hence, the committee has presented a factual study of the present situation in the hope that Hoosier medical men will become more actively interested in the institution.

Editorial Notes

Nearly eighteen hundred registrations certainly indicates a healthy state of affairs within the Association.

The Woman's Auxiliary to the Indiana State Medical Association finally has come into its own, for it was officially recognized by the House of Delegates at the second session this year. We believe this action to be a merited one, since the Auxiliary has rendered distinctive service since its organization in this state.

THE JOURNAL welcomes two new members to the Editorial Board, Dr. L. T. Rawles, of Fort Wayne, and Dr. Edgar F. Kiser, of Indianapolis, who will succeed Dr. L. P. Harshman, of Fort Wayne, and Dr. Ernest Rupel, of Indianapolis, the latter a charter member of the Board. A year ago the Council reorganized the Board, increasing the membership to six, two to be elected each year.

A resolution declaring clinical pathology and roentgenology to be the practice of medicine received the endorsement of the House of Delegates, it being the sense of the delegates that such work should be done by physicians only. Some objection was raised, due to the complaint that such action militated against certain of the small hospitals within the state, but the sponsors of the resolution declared that this situation could easily be met.

Some seventy-five eye physicians who make the examinations for the Blind Assistance Department of the State Department of Public Welfare met at a luncheon during the convention. Dr. C. W. Rutherford, chief examiner of the department, talked of some changes in the examinations required and in the report forms to be used in the future. He stated that some 2,400 Indiana folk were recipients of blind assistance at this time.

Rocky Mountain Spotted Fever! Those words are ominous in certain sections of the West, but Hoosiers seem to regard them as not applying to this locality. However, among the scientific exhibits at the recent convention was a chart showing the distribution of this disease within the borders of our state. Seventeen cases were charted, eight of which had fatal termination. This would seem to indicate that we must have some regard for this disease even in Indiana.

Dr. Frank L. Jennings, of Glen Lake, Minnesota, has been named superintendent of the Marion County Tuberculosis Hospital to succeed the late Dr. A. E. Hubbard. Receiving his early training in New York State, Dr. Jennings went to Minnesota to serve as superintendent of a large tuberculosis sanitarium. He also served as assistant clinical professor of medicine in the University of Minnesota Medical School. Dr. Jennings comes to Indiana well recommended and THE JOURNAL extends to him a cordial welcome.

During the last three years, the school buses of Indiana have traveled *over twenty million miles* without serious injury to a school child passenger. This represents considerably more than a billion passenger miles. We believe this record is equalled by no other state. It is well to remember that all such bus transportation is under the direction and immediate control of the State Board of Health. As a matter of fact, these buses now in use were designed by this Board, the unusual safety features having been planned by Dr. Verne Harvey, the executive officer of the Board.

At a meeting of the Editorial Board it was decided to continue the Topic-of-the-Month during 1939. Tentative schedules were made for the first seven months of the year, the remainder of the schedule to be made at a later date. It is planned to repeat three of the subjects discussed during the present year, pneumonia, syphilis, and cancer. One subject was added, a subject that might appear odd to Indiana doctors: malaria. However, 1938 was a malaria year in many sections of the state, several hundred cases having been reported in more than one part of Indiana, and it was deemed worth while to have a special number of the magazine devoted to that subject.

Members having in mind a trip to Honolulu in 1939 may be interested in the announcement that the Pan-Pacific Surgical Association will hold a meeting in that city, September 15 to 28, 1939, to which are invited members of our State Association. This society includes members of the medical profession throughout the Pacific area and already has held two very successful meetings, both in Honolulu. Australia, New Zealand, China, Japan, Java, Canada and the United States are represented in their membership. Those interested may write the secretary, Forrest J. Pinkerton, Young Building, Honolulu, Hawaii, or Frederick Reichert, program chairman, who may be addressed in care of Stanford University Hospital, San Francisco. Secretary Pinkerton, a Hoosier by the way, adds this greeting at the bottom of the announcement: "Aloha!"

An amendment to the U. S. Employment Compensation Act, approved May 31, 1938, requires U. S. Employee's Compensation Commission to recognize osteopathic practitioners "within the scope of their practice as defined by state law." The change has been made in the definition of the term "physician" to include surgeons and osteopathic practitioners. The effect of the amendment is to authorize the use of services of osteopathic practitioners in supplying medical treatment authorized by the Federal Employee's Compensation Act. Before May 31, 1938, the following paragraph in reference to physicians was included in the rules and regulations of the Employee's Compensation Act:

"The term 'physician' includes only graduates of a recognized medical school with a degree of M.D. who are licensed to practice medicine in the State in which they reside." The following has been added to this paragraph: "and licensed osteopathic practitioners within the scope of their practice as defined by State Law." This change requires state compensation officers for WPA work to make provision for the services of osteopathic practitioners in addition to the regularly licensed M.D.'s. The change came about through the Drew-Burke Act passed at the last session of Congress.

Miss Krieger, secretary to President Herman Baker, made a compilation the other day that attracted our interest. It seems that this efficient little person has taken a most active interest in Dr. Baker's work and has kept a minute record of his travels. The record shows that Dr. Baker has been absent from his office *seventy-three days* between January first and September thirtieth of this year, and during that time he traveled more than *twenty-one thousand miles!* Yes, this has been an exceptional year; medical problems are more numerous and of greater magnitude than ever before in our history; it has required a lot of energy, thought, and travel to attend to all the duties that have presented themselves. But, even so, there is no rhyme or reason to expecting any man, even though he be president of one of the liveliest medical organizations in the country, to answer all the demands made upon his time. Few of our members could afford this and, what is more, it is an unwarranted burden. Time was when the presidency of this Association was an honor. Today it is a job! It would be well for us to consider some means of lightening this load that few men can carry, a load that no man should be asked to carry.

The *Scientec News Letter*, a bulletin issued by the Scientec Club of Evansville, carries a note concerning an address recently made before the club by Dr. Minor Miller, of that city, on "Socialized

Medicine." The editor of the bulletin has this to say regarding the subject: "We felt that this subject was most timely and that our members should know just what this new proposed communistic movement is, how it has worked in European countries where it has been tried, etc. Entirely too much asinine legislation is being enacted and it is our belief that it is high time for the professional men of this country to awaken to the exact meaning and trend of some of the measures which are pending and to act accordingly. . . . Since the introduction of 'Socialized Medicine' into Germany, some fifty years ago, disease and sickness has increased just *three hundred per cent.* Since its introduction into England, about twenty years ago, the increase has been *two hundred per cent.* Need any more be said?" The foregoing bears out what was said in an editorial note in the October number of THE JOURNAL, that if we but inform our friends as to the exact meaning of the efforts of crack-brained dreamers to hamstring the greatest of all the professions, we would find support in many unexpected quarters.

The demise of Dr. Charles Phillips Emerson marks the passing of one of Indiana's adopted sons whose fame as an accomplished physician, a skilled author, a great teacher and a learned scholar was nation-wide. He came to us from Johns Hopkins University when that institution was at the peak of its glory and brought with him the erudition of Osler, the clinician, and Welch, the organizer. Doctor Emerson took over the reins of our Indiana Medical School at a time when it required nothing less than a genius to make order out of chaos. This he did, and did well, and laid the foundation of an institution of which Indiana is justly proud. Doctor Emerson's professional attainments need no extended comment. He was a skilled physician, one whose skill and knowledge was predicated on a fine cultural background and on many years of diversified schooling at home and abroad. As a teacher, he was surpassed by few. He had a wealth of knowledge, an extensive vocabulary, and a command of English that always held the interest of his auditors. His long years of teaching and a facile pen made him a successful medical author, and a number of his textbooks on medicine and the allied sciences went through many editions. He was a pioneer in medical social service and laid a foundation in our community upon which a very substantial structure has been erected. Doctor Emerson was deeply religious, sincerely religious, and he carried the precepts of the Great Physician into his daily professional service. He had traveled extensively in the Orient in the interest of the medical missionary movement and gave to that work the earnestness and zeal which characterized his every endeavor. The memory of Charles Phillips Emerson will long be cherished by many who were his colleagues and students.

Convention Notes



Dean Jordan Cy Clark Dean Gatch Mr. Stump Dr. VanBuskirk Dr. Sleyster Dr. Asher Dean Myers

Lieutenant-Governor Henry Schricker, who had accepted an invitation to attend the annual banquet, was forced to miss that event, due to his having been called to his former home in Knox on account of the death of a close friend.

Chairman of the Council Maynard Austin does a right smart job of conducting the deliberations of that body. Time was when much time was lost in unnecessary chatter, but Maynard uses the old oil can and keeps things clicking.

Yep, the Shelbyville Kennedys, Sam and the Missus, were early arrivals. They never miss a medical convention and derive much pleasure from them. We probably will see them down in New York the latter part of the month.

Art Kresler, Rensselaer, is another regular; been a delegate for several years now, and is known as one of the Conservatives.

Art Stinson, Rochester, never misses a convention; says he has nothing on his mind, just wants to see that things move along and he gets a bang out of the House meetings.

Somehow or other we managed to escape the "Sweet Adeline" choral society, that group which usually clutters the early morning atmosphere with a lot of dis-harmony. This may be due to the fact that Indianapolis hotels are rather widely separated, but none the less we appreciate having avoided them.

Jake Oliphant, long ago proclaimed by his District as "The Perfect Delegate," moved about the convention halls in his quiet, observant manner. Jake knows what it is all about, having been in state conventions since he was a little boy. A few years more, says Jake, and he will turn the reins over to his son.

Dr. W. T. Lawson, Danville, the oldest active county medical society secretary in Indiana, was on the job early and remained throughout the convention. Dr. Lawson began collecting State Association dues in 1881, when the per capita was \$1.00. He has maintained his society activity to this date, surely a record of which any physician might be proud.

Norm Beatty, general arrangements chairman, had things under control at all times. As a matter of fact, nothing was overlooked that might add to



Dean Gatch

Dr. Romberger Dean Myers

Dr. Padgett

Dr. Bailey

Dr. Winters

Dr. Kohlstaedt

*Dr. Moore**Dr. Baker**Dr. Geo. Vincent**Dr. Austin**Dr. Dandy**The Editors*

the comfort of the visiting host of doctors. At the convention headquarters, visitors were met at the door and directed to the various points about the building. Seems as though the reception committee consisted of the entire membership of the Indianapolis Medical Society.

Herman Baker ran the machinery of the House like a veteran; little time was lost in House organization and once this was accomplished things clicked off very smoothly.

Several old-timers were missing when the final roll call was taken, among them Walter Carver, of Albion. Walter long has been a regular attendant, but a recent serious illness compelled him to remain at home. The House of Delegates sent him a cheering message, reminding him that his absence truly had been noted.

Maynard Austin, professed ardent JOURNAL advocate, was put on the spot at the Council luncheon when someone facetiously referred to what Edgar Kiser had had to say about the efficient Council chairman in the October issue. Maynard has repeatedly declared that he "does" each issue of THE JOURNAL, advertisements and all, but this incident would seem to cast at least the shadow of a doubt upon his oft-repeated declarations.

Standing in front of the Temple one morning, we were accosted by a "Hi, there!" Turning, we

saw "Uncle Jeff" Barnhill, in person, looking quite well since recovering from an illness and an injury and all set for a good time at the convention, banquet and all. He stated that he had been attending these conventions since 1889, almost fifty years, which is a mark for anyone to shoot at.

Registration at the convention was so heavy that it required the services of a battery of typists to take care of them; at one time there were ten very accommodating young women making out cards for the visiting physicians. Somehow or other it seems the registration desk serves as a hangout for many of the older doctors—some not so old, too. From year to year we have noticed that Ferd Weyerbacher seldom strays far from that point of vantage. We often have wondered why Ferd doesn't do something about it!

"Bill" Wishard sure is forehanded and according to some of his Indianapolis friends he has pulled a good one. 'Tis said that Bill is about to be married and that he obtained the necessary license several weeks ago. When asked about it, he admitted the purchase of the license and explained that if he waited until just before the wedding date he would have reached the age of forty. Get it? It is said that "Life Begins at Forty" and Bill evidently wants to be all set for the start.

We sure stopped Johnny Warvel, the auburn-haired diagnostic chap, you know. Told him about

*Dr. J. F. Barnhill**Dr. G. B. Jackson Dr. H. Morgan Mr. Hawkins Dr. Hall Dr. Clark Dr. Moore Dr. Baker*



Golf prizes . . .

Smoker . . .

Good time . . .

a diagnosis made by one of his Chicago friends: "hydro-static syncope." John at first declared we had made an error in the terms used, but when we produced the original manuscript, he was speechless. Went into an East-Indian trance, but that availed little. Later he came back and asked what it meant. We told him and walked away, leaving him with a vacant stare. Yes, we stopped him, cold!

Cy Clark, he with the booming voice and very positive convictions about everything, was unanimously voted the most consistent eater at the convention. It is said of Cy, and he tactfully admits the allegation, that he can leave the table after partaking of a very hearty dinner and a few minutes later, *on invitation*, can sit himself down to a dinner of even greater magnitude. This no doubt will account for a lot of things we have noted about Cy.

During the Council luncheon, Walt Christophel, Twelfth District boss, and Al Stump, the official barrister for the State Association, reminisced in great fashion over their recent trips abroad. Seems that each of them traced their ancestry back to Holland and it was this country that they featured in their conversation. Later on, they discovered

that both had been born up near Elkhart, Indiana, which discovery heightened their mutual interest. Had the luncheon continued fifteen more minutes we are certain they would have traced down a blood relationship!

Nez Forster has been commuting between Hammond and Indianapolis these past few weeks; as a member of the social group which has been studying the Indiana Plan program, Nez has made several trips to the Hoosier metropolis, each time cutting minutes off the time consumed. Coming down for the House of Delegates meeting Tuesday afternoon he reduced the running time to an even two and one-half hours and he says that if business keeps up he will be able to do it in two hours flat. Some speed-boy, that Forster.

Herm Baker gets all het up very easily. No, we do not mean that his risibilities are easily aroused, but that on the slightest provocation his bodily temperature assumes tropical proportions. Dressed in what we term a very light suit, one morning he declared that before he did one other thing he was going back to his hotel and put on a lighter suit. As we surveyed the garb he had on at the time and heard him complaining, we were a bit surprised a little later on to find that he had not put on shorts.



Some of the past presidents and their wives at the banquet



The president and the editor confer a bit

The Murat Temple affords most of the conveniences necessary to a successful convention. The exhibit space is well arranged and is commodious, the convention halls offer accommodations for a record attendance and there are smaller rooms for the Section meetings. The only drawback we found is that one takes his very life in his hands every time he heads toward the Temple. Tuesday evening we walked back to

headquarters at a time when the home-going traffic was at its peak; seemed that every car in Marion County was headed out Massachusetts Avenue, going like a bat fresh out of the Nether Regions. With the angle street and the four-way cross streets, a man of our age has no business trying to negotiate those few blocks. We darn near lost our pants at every corner, and in addition we were late for an Editorial Board meeting.

President-elect Van Buskirk, good Samaritan ever, was perturbed during the address of Dr. George Vincent at the annual banquet.

Van noted that the customary water pitcher was not present on the speaker's table, and that Dr. Vincent frequently wiped his face with his hankie. Judging that this meant a need of fluids, Van hied himself offstage and a moment later proffered Dr. Vincent a glass of cold water. With not one break in his machine-gun delivery, Dr. Vincent waved aside the glass, said, "This windmill runs on wind, not water!" and proceeded with his talk. Whereupon, Van himself drank the water!

Praise be! The first session of the House began right on time and went along swimmingly for quite a time. Then Davy Crockett stepped before the mike, opened a voluminous brief case, extracting therefrom sixty-five minutes of talk, thus breaking all previous convention records for vocal longevity. Ross Sensenich was pretty sour about it all, since he held the previous record, having talked sixty-four minutes some two years ago. He berated Davy about it, using pretty strong language. Ross has recently become an addict to this strong language business, it seems; at the

special session of the AMA House of Delegates, he termed the writer "an irritable wart!"

Jesse Bowers, of the Credentials Committee, in accounting for a very apparent loss of weight, stated that he had had his teeth removed and that as yet he had not become oriented to them, hence could not eat very well. He said that he was preparing to hie himself up to British Columbia on a hunting expedition and that while there he confidently expected to train his store teeth on bear meat. This teeth problem also is affecting Alexander, of Terre Haute. He has considerable trouble in phonation due to failure to have practiced on public speaking before he came to the convention.

The upper classmen of the University School of Medicine were given the run of the convention and

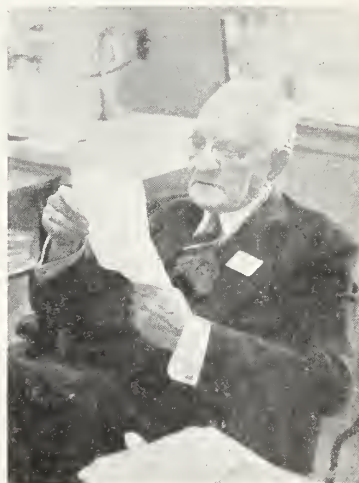
were present in large numbers. Classes were dismissed for the Wednesday session, that the juniors and seniors might hear the most able speakers at the opening general session. Most of the boys dropped in for the stag smoker and, having few friends of former years to greet, congregated about the refreshment tables and did justice to the viands set before them. Some of these lads have acquired the art of the proper elbow tilt to a high degree, thus quali-

fying for the annual get-togethers after they shall have graduated and become full-fledged members of the Association.

Numerous inquiries were made concerning Dr. William Niles Wishard, the Grand Old Man of Indiana Medicine, and it was hoped he would be able to be present at the first meeting of the House. Without "Daddy Wishard" the House does not seem at all natural.



Drs. VanBuskirk, Baker, Ruddell, and Austin (standing)—the "four horsemen"



"The Grand Old Man of Indiana Medicine"

Wallace Grayson, of Huntington, became so interested in the carryings-on of a group of gallopin' gazelles at the stag smoker that he absent-mindedly threw away his hat check; his excuse was that he was fearful lest one of the gals might lose her shirt (we opine he might have been more fearful she wouldn't). Anyway, when time came to leave he couldn't get his hat, just like the "no-tickee, no-washee" of the Chinese. So back up the stairs he went and crawled in, about, and under the chairs, finally finding the check and reclaiming his hat. Wally says, "Never again will I be concerned about women!"

Seems as though some chaps go to medical conventions solely for the purpose of seeing just how many annoying comments they can dig up. Take this Rice guy, now—Thurman Brooks as he was christened—stands around looking for some opportunity to slam some person or persons. His latest observation is that he has noted that the sons of Hoosier doctors now attending the University School of Medicine are invariably better looking and a heap smarter than their dads. We know of no earthly reason why *anyone* should find it necessary to make such a crack; it serves no purpose, whatever, save to rile up several respectable practitioners of the healing art in this sovereign state (as Romberger calls it). The reader may have suspicioned that we have a son in this school.

The day before the opening of the convention we heard a groanin' and a moanin' about the exhibit hall. Tracing down the mournful wails we found they were emanating from the Blond Senator, as secretary Tom Hendricks has come to be known. On inquiry we elicited the information that he was unable to locate his gangster green sweater, an article of apparel he has been wont to don on the day before the opening of the convention, while working about the exhibit hall. Seems that after said sweater was so prominently featured in Convention Notes of last year, Mrs. Peggy up and gave the darn thing away. So Tommy had to do his Monday chores hatless and sweaterless, but nevertheless his red galluses made some sort of showing.

That Austin chap, from Anderson, essayed a fast one but was caught up by his son, a junior student in the University School of Medicine. Maynard came to Indianapolis all decked out in a new bonnet of a style we never before had noted. Said it was an imported Alpine hat and that the feather adorning same was from the tail of a rare bird found only in Switzerland. While said feather looked very much like some we were wont to know up around Wild Cat, we nevertheless accepted the story in good faith. However, at the stag smoker

we were disillusioned when the younger Austin, in commenting on the hat (by the way he said it was an ancient Anderson model) stated that "Dad took that feather from the tail of a Barred Rock that we had for dinner last Sunday." Odd, isn't it, what tales these young hopefuls will tell!

The annual stag-smoker attracted an unusually large attendance and all those present enjoyed the evening to the fullest degree except, perhaps, those few who persisted in guessing what the man across the table had "in the hole." Some were good guessers while others had no luck. Plenty of light lunch was provided, together with a bountiful supply of Gambrinic Nectar, both these essentials being served in such a manner as to avoid crowding and permit all to have their fill. The entertainment was of a high class, a group of young women supplying the greater part. There also was on the bill an excellent colored quartet. While these boys were putting on their act George Daniels, back in the rear of the hall, was talking and it was a bit hard to hear the harmony. George sure does like that talk stuff!

"Where's Elmer?" was the oft-repeated cry a few years ago. At the stag smoker the question most commonly asked was "Where's Alex?" meaning Alex of Terre Haute. We do not recall a time when Alex failed us at the smoker. No one seemed to know what had become of him; even Mitch, ever faithful, knew naught of him. Later in the night, after we had retired, we heard ominous sounds coming in our open window. They seemed to come from above us and a little investigation showed that they came from four floors immediately above us at the Lincoln. Thinking there was some one in distress we hurried to the upper floor and through the door could hear the wailing of one in travail. Cautiously tapping on the door a voice asked, "Who's there?" We gave our identity and the door was opened. There stood Alex, disheveled as we never had before seen him. A haunted look upon his face betokened deep distress. A few moments of questioning and Alex finally broke down and said he would tell all. "For hours I've been laboring with this three-hundred-page report of Davy Crockett's and the end is not in sight; I'm done in and can go no further!"

Colonel Harrington, of the Harrington-Marmon Company of Indianapolis, talked at the Veteran's luncheon during the convention. His subject was "The Present European Situation" and he was unusually well qualified because he had just returned from a trip to Europe which included Germany, Czechoslovakia, and several other countries. Attendants at the luncheon were agreed that it was the best Veteran's meeting they had ever had.

HIGH-LIGHT ACTIONS OF HOUSE OF DELEGATES AND COUNCIL AT INDIANAPOLIS SESSION

So important and far-reaching are the potential results of the actions taken by the House of Delegates and the Council at the eighty-ninth annual session of the Indiana State Medical Association that every physician in the state should be thoroughly familiar with just what happened in Indianapolis on October 4, 5 and 6. This can best be done by studying the minutes of the House of Delegates and the Council which appear in this issue of *THE JOURNAL*. Realizing, however, that only a small percentage will take time to read the official minutes, no matter how important they may be, the following brief outline as to just what the House of Delegates and the Council recommended is presented.

ACTIONS OF HOUSE OF DELEGATES

I. Liberal Program Adopted. Recommendations adopted by the American Medical Association at the recent special session in Chicago which in many respects approved in principle the National Health Conference program as promulgated at Washington in July, were voted upon favorably by the Indiana House of Delegates. The delegates also approved the program presented by the Council of the Indiana State Medical Association. The high points in these recommendations are:

1. The State Medical Association is to work out and present to the county medical societies a definite program covering hospital insurance and voluntary sickness indemnity insurance.

2. Compulsory federal or state health insurance plans were unequivocally condemned. Some effort should be made "to organize said health insurance so that it can be kept under the complete supervision of the medical profession, and we recommend that the profession be given a definite plan at once."

3. Public health, hospital building, and indigent care programs, whenever and wherever needed, are to be promoted by each county medical society.

4. County medical society boards to which an individual may appeal if he feels he has been overcharged are to be set up.

5. The "Indiana Plan" is to be put into actual practice. "It now becomes the responsibility of each member of this House of Delegates to see that this plan is explained and carried out in his respective county."

6. Full-time secretaries were recommended for the larger county medical societies and suggestion made that some of the smaller societies join together and maintain a full-time headquarters office.

7. Recommendation made for the establishment of a federal department of health with a secretary who shall be a doctor of medicine and a member of the president's cabinet.

8. Approval of the principle of insurance against loss of wages during sickness.

II. Medical School Report. The special committee appointed by Dr. E. D. Clark (deceased), past president, made a lengthy, impartial, and thorough report including many recommendations which in the view of the committee would benefit the standing of the school. Most important of the special committee's recommendations were:

1. All of the medical course should be given in Indianapolis and not part at Bloomington as under the present system.

2. A full-time dean should be in charge.

3. School should have additional funds.

This special committee's report was modified by the House of Delegates and herewith are the most important features of the final official report as adopted:

1. Confidence was expressed in the present management of the medical school both at Bloomington and at Indianapolis.

2. Indiana University follows closely the present accepted method of other schools in the selection of candidates.

3. Additional funds should be sought as needs are demonstrated.

4. Matter of expense prohibits the employment of all of the personnel on a full-time basis.

5. Administrative duties of the dean "could be made less burdensome and the standards of the Council on Medical Education be met by the employment of an individual properly qualified as an educator to assist in the administrative machinery as applied to the student body and also particularly to supervise the admission of patients and the utilization of clinical material, the institution might continue to have the services of a part-time dean and have the advantage of the broader contacts and professional viewpoints of a physician actively engaged in private practice."

6. Complete four-year course to be given at the medical center in Indianapolis and the committee advises that "such transfer be made at such time as conditions will permit."

III. Resolution against Indiscriminate Use of Barbiturates. This resolution urges the passing of a bill at the next session of the legislature which

would make it unlawful for anyone to sell, furnish, give away, or offer for sale at retail this class of drugs except on prescription of a physician, a dentist, or a veterinary.

IV. Free Biologicals for Indigents. This resolution asks that biological products be made available to the health authorities for use by any licensed physicians among the needy in the various localities.

V. Veterans' Resolution. Request made that a regular United States Army instructor be made available for training medical reserve officers of the Fifth Corps Area.

VI. Resolution in regard to Status of Clinical, Pathologic, and Radiologic Laboratories in Hospitals and Institutions. This resolution reaffirms the action of the House of Delegates of the American Medical Association "that the practice of clinical pathology and roentgenology is the practice of medicine" and recommends that clinical and roentgenological laboratory services be excluded from service contracts which exclude other professional services, and further recommends that all laboratories practicing these specialties should be recognized as being ethical only when they are operated and supervised by a physician trained and recognized as being competent in these specialties in medicine.

VII. Recognition of Woman's Auxiliary. For the first time the Woman's Auxiliary was officially recognized by the Indiana State Medical Association. The resolution gave the Woman's Auxiliary the privilege "to approach the various county medical societies for the purpose of establishing active units therein."

VIII. Special Postgraduate Courses on Children's Crippling Diseases. The House recommended that a "special postgraduate course be held to better acquaint the profession as to the needs and treatment of this type of our work."

IX. Recommendations of President Baker.

1. Increase in staff at headquarters office and promotion of Miss Lucille Kribs to assistant secretary and Miss Hope Toman to assistant editor of *THE JOURNAL*.

2. *Graduate Education.* Reorganization of the Committee on Medical Education and Hospitals, increasing the membership to six members who are to employ a physician as a full-time secretary whose duty it will be to organize every hospital in the State of Indiana as a center of graduate teaching, and to organize graduate courses in local county societies.

3. Creation of a permanent study committee to keep in touch with the national health situation.

4. Increase in membership dues.

Dr. Baker's entire report, including the increase in dues, was referred to the Council.

X. Resolutions to Change Constitution and By-Laws.

1. Under the provision adopted by the House of Delegates, a physician may join the county society most convenient for him to attend "on permission of the society in whose jurisdiction he has his office or has the major part of his practice." The old by-law read, "On permission of the society in whose jurisdiction he resides."

2. Honorary membership eligibility be lowered from seventy-five to sixty-five years. As this is a change in the Constitution it will come up for final vote next year.

3. Resolution introduced which would do away with the ineligibility of a delegate to be named an officer of the State Association. Under the present Constitution no delegate can be elected president of the State Association while serving as a delegate. This will come up for final vote next year.

XI. Constitution of the Indiana Inter-Professional Health Council. The House of Delegates approved the constitution of the Indiana Inter-Professional Health Council of which the Indiana State Medical Association is a member.

ACTIONS OF THE COUNCIL

Following the instructions of the House of Delegates, the Council is to take up the matter of increase in state membership dues (the amount under consideration is \$12.00, which is an increase of \$5.00 per year) with each district society. The Executive Committee is to prepare material which will be available showing the necessity for the increase.

The Council authorized the Budget Committee to appropriate moneys from the reserve fund to take care of any additional help at the headquarters office, if such expenditure is necessary.

The midwinter meeting of the Council was set for January 15, 1939.

READ THE COMPLETE
REPORTS FROM THE
INDIANAPOLIS CONVENTION
ON PAGES 640 to 659

CHILD HEALTH MANUAL

A COMMUNICATION FROM THE INDIANA PEDIATRIC SOCIETY

At a meeting of the Indiana Pediatric Society, held last fall, it was decided to write a manual on child health for public consumption. It is to be written by selected members of the Pediatric Society and edited by a committee of that society.

HOW PUBLISHED

The editor of *THE JOURNAL* has consented to publish the articles of this manual serially. Reprints may be obtained for distribution to the public. There is also a probability that they will later be published in book form.

NEED

It is believed that articles on child health, written by those specializing in pediatrics, will be authentic text for doctors and others lecturing to the public. For many years, the need of some means of getting child health knowledge to the public has been realized. For ultimate success, the public school seems the best means. It is, therefore, recommended that the child health manual be placed in the hands of school teachers of Indiana, with the hope that they will pass the knowledge on to their pupils.

Through these two sources, lectures to the public and the education of school teachers, the Indiana Pediatric Society hopes to disseminate knowledge which will be of value to the public.

CONTENTS

A manual on health should tell one how to recognize serious disease, in order that the doctor may be called early, when his services will be of greatest benefit. It is well known that tuberculosis and appendicitis are too often far advanced when the physician is called.

A description of the normal infant, his development and behavior will give the mother desirable information. The book will also contain chapters on child hygiene, child training, balanced diet and a description of communicable diseases. Immunity, the methods, and the time to immunize against diseases will be described.

Aside from emergencies there will be no advice given on treatment of disease, nor will there be a chapter on infant feeding, for the reason that the infant should be seen by the physician, at intervals, so that he may watch development and correct defects, as well as change the diet.

DISTRIBUTION

After consultation, it is contemplated that reprints of the articles which appear in *THE JOURNAL* will be obtained by the State Department of Health for distribution. Consequently, any one article will be available when requested. It is not contemplated that the entire book should be given to the public because of the expense and waste this would entail.

In case the material is later published in book form, it seems that it might be profitably distributed to school teachers by the State Department of Health.

AUTHORSHIP

As stated above, the chapters will be written by pediatricians selected by the committee and will be edited by the committee. No individual will be given credit for any part. All responsibility will be assumed by the Indiana Pediatric Society.

The first article in the series will be published in the January 1939 issue of *THE JOURNAL*.

STATE FAIR

The 1938 State Fair exhibit of the Indiana State Medical Association and American Medical Association enjoyed the largest attendance of any to date. During the rush hours of the Labor Day crowd, over 2,000 people passed through the exhibit building hourly.

Exhibits on tularemia, cancer, and heart disease were shown. The tularemia exhibit consisted of a number of illuminated photographs showing all stages of the disease, both in humans and in rabbits, and attracted considerable attention.

Pamphlets on both heart disease and cancer were distributed and explanatory posters and pictures were displayed.

AN ANALYSIS OF THE BLOOD PRESSURES TAKEN AT THE 1938 INDIANA STATE FAIR

Blood pressure examinations were made on 2,382 visitors, using new mercury manometers.

Of these approximately two-thirds were females and one-third were males. One hundred four had diastolic blood pressures over 100. Two hundred ninety-four had systolic pressures over 150, making a total of 398, or approximately one-sixth of all those examined, had abnormal blood pressure.

An analysis of the data is presented in Tables 1 and 2. Table 1 shows a progressive rise in average blood pressures in comparison of the age groups. The average systolic blood pressure was found to be

TABLE 1

Age Groups	11-20		21-30		31-40		41-50		51-60		61-70		71-80		81-90		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Number	85	106	146	258	162	331	162	384	143	342	82	123	29	27	1	1	2382
Average Blood Pressure.....	124.8		124.6		126.1		132.7		132.8		145.8		153.0		141.0		135
Diastolic Blood																	
Pressure over 100.....	0	1	2	2	2	8	5	26	10	22	10	13	1	3	0	0	104
Systolic Blood																	
Pressure over 150.. ..	5	0	5	12	9	18	12	44	25	81	20	39	7	16	0	1	294
with diastolics less																	
than 100																	
M—Male																	
F—Female																	

TABLE 2

Systolic Blood Pressure.....	80	90	100	110	120	130	140	150	160	170	180	190	201-260
Number	14	47	226	435	544	442	274	138	94	67	37	24	29

135.1. The blood pressures ranged from 80/60 in an 18-year-old girl to 260/170 in a 47-year-old woman. Most of the systolic blood pressures fell in the range of 111 to 140. However, 29 individuals were found to have blood pressures over 200.

In the group having diastolic pressures over 100, 2/3 of them were in the age group of 40-60. Fifty-four per cent of those having systolic blood pressures over 150 were in the age group of 41 to 70. In the age group 10-20, 5 males were found to have a blood pressure over 150. Although the table does not demonstrate this fact, it was not infrequent to find young people in their teens and twenties showing a systolic pressure ranging from 135 to 150.

One individual, age 26, a coal miner, showed an interesting difference in blood pressures in his two arms. He had on the right a pressure of 128/74

and on the left a pressure of 102/62. He, as well as those showing elevated blood pressures, were advised to consult their family physicians.

Table 1 shows that the average blood pressure up to the age of 50 is 127 and after that the average is 133.1, showing that blood pressure tends to rise with the advance in age.

It was surprising to find 14 individuals who had a systolic pressure in the eighties and yet seemed unrestricted in activity and apparently normal.

Table 2 shows that most of the blood pressures fell in 3 main groups, viz., 110 to 139, with the majority in the 120 group.

A member of the State Fair Committee was present each day. Miss Hoeflin, superintendent of nurses at the Indiana University Medical Center, supplied a graduate nurse to assist in the blood pressure examinations.

SILICOSIS AND SILICOTUBERCULOSIS

HENRY K. TAYLOR and HYMAN ALEXANDER, New York (*Journal A.M.A.*, July 30, 1938), discuss the etiology, symptoms, physical manifestations, x-ray examinations, complications, diagnosis (also differential), treatment and the incidence of silicotuberculosis, and in summary state that sixty-five patients with silicosis and silicotuberculosis were under observation in Sea View Hospital between 1932 and 1937. Forty-three were referred for admission with a diagnosis of pulmonary tuberculosis, nineteen with a diagnosis of silicotuberculosis and three with no recorded diagnosis. A study of this group revealed that twenty-six had silicosis and forty had silicotuberculosis. With the exclusion of clinically diagnosed cases of silicosis the incidence of silicotuberculosis in the group is 60.6 per cent. From this it may be assumed that the incidence of tuberculosis and silicosis is considerably below 60 per cent in a nonselected group at large. The diagnosis of silicosis or silicotuberculosis rarely presents difficulties. Three proved cases of silicosis presented pulmonary excavations. At no time was the tubercle bacillus recovered from the sputum or gastric contents. Because of the persistently negative sputums, even in the presence of pulmonary excavations on x-ray examination, a diagnosis of silicosis was made and pulmonary tuberculosis excluded. The total number of deaths from silicosis and silicotuberculosis was thirty-two. Permission for postmortem examinations was obtained in twenty-five. In seven of these patients silicosis was demonstrated, three of which presented non-tuberculous excavations, with no tuberculosis. In this same group there were two cases of extrapulmonary tuberculosis in which death occurred from a generalized

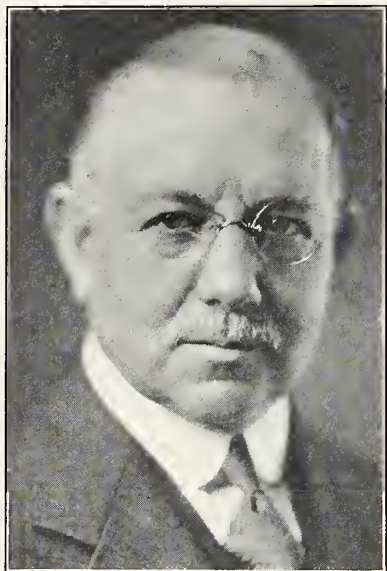
miliary lesion. During hospitalization these patients never had a positive sputum. The cases of tuberculosis all showed a caseous-pneumonic type of lesion, and during hospitalization a persistently positive sputum was present in all.

TUBERCULOSIS AND THE INDIANA PLAN

Under the "Indiana Plan" in regard to tuberculosis the following recommendations are made:

1. Physical examination of every child at age sixteen, including tuberculin test.
2. Thorough physical examination upon entering college or industry.
3. Examination of all nurses upon entering training and recheck at regular intervals.
4. X-ray available for positive reactors.
5. Trace contacts and examine.
6. Protect the community from infectious cases by adequate number of hospital beds.
7. Concentration on detection of early cases.
8. Cooperation with Anti-Tuberculosis Association and Public Health Nursing organizations.
9. Continue educational program in high schools.
10. Use collapse therapy when indicated.
11. Rehabilitation Program.

Deaths



Charles P. Emerson

CHARLES PHILLIPS EMERSON, M.D., of Indianapolis, died September twenty-sixth, after a short illness. Death was due to bronchial pneumonia. He was sixty-six years old.

Dr. Emerson was a native of Massachusetts. He graduated from Amherst College in 1894 and from Johns Hopkins University School of Medicine, Baltimore, in 1899. He then spent several years in Europe, where he studied at Strassburg, Germany, Basle, Switzerland, and Paris. Upon his return to the United States, he was made associate in medicine at Johns Hopkins University. He served as superintendent of Clifton Springs (N. Y.) Sanitarium from 1908 to 1911, and was assistant professor of medicine at Cornell University in 1909 and 1910. He came to Indianapolis from Cornell in 1911. For twenty-one years Dr. Emerson served as dean of the Indiana University Medical School and under his guidance it became one of the leading institutions in the country. Following his retirement as dean in 1932, Dr. Emerson remained on the faculty of the medical school as Research Professor of Medicine, which position he held at the time of his death. During his administration at the medical school, extensive construction work was completed, including the William H. Coleman Hospital for Women, the James Whitcomb Riley Hospital for Children, the Robert W. Long Hospital, the medical school building, and the nurses' home.

Dr. Emerson was president of the Association of American Medical Colleges in 1923 and since 1924 had been president of the National Committee for Mental Hygiene. He was a member

of the Layman's Foreign Missionary Commission and spent the years 1931 and 1932 in the Orient, where he studied the use of American funds for philanthropic purposes.

Nationally known as an internist and author of many important books in his field of medical science, Dr. Emerson's best-known book probably was his *Textbook of Medicine*. Others included *The Nervous Patient*, *Clinical Diagnosis*, *Physiology and Hygiene*, *Essentials of Medicine*, and at the time of his death a new book, *The Relation Between Injury and Disease*, written in collaboration with Drs. Jewett V. Reed and E. B. Mumford, was just off the press.

Dr. Emerson was a member of the Association of American Physicians, the Indianapolis Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association. He held the certificate of the American Board of Internal Medicine.

As The Indianapolis News commented editorially, Dr. Emerson, through his work and service, has "attained a secure place in the history of American medical progress."

WILLIAM MOORE, M.D., New Albany, died October eighth, aged eighty-six years. Dr. Moore had practiced in New Albany since 1900. He was an honorary member of the Floyd County Medical Society and of the Indiana State Medical Association, and was a member of the American Medical Association. Dr. Moore graduated from the University of Louisville School of Medicine in 1884.

WILLIAM HARVEY WAGONER, M.D., of Peru, died September twenty-fifth, aged sixty-two years. Dr. Wagoner was a graduate of the Eclectic Medical College of Cincinnati in 1903 and had practiced in Peru for thirty-five years.

ORLANDO BROWNBACK, M.D., of Pendleton, aged ninety-two years, died October thirteenth. Dr. Brownback had retired from active practice. He graduated from the University of Pennsylvania School of Medicine in Philadelphia in 1867, and was an honorary member of the Madison County Medical Society and of the Indiana State Medical Association, and was a member of the American Medical Association.

HERMAN WALTER MACDONALD, M.D., of New Castle, died in an Indianapolis hospital, September twenty-first. Dr. MacDonald was fifty-four years old. He began his practice in New Castle soon after his graduation from Indiana University School of Medicine in 1909. He was a member of

the Henry County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

BENJAMIN FRANK HUTCHINGS, M.D., of Crawfordsville, oldest physician in Montgomery county, died September twenty-ninth, aged ninety-two years. He had recently retired from practice which he began in Montgomery county in 1872. Dr. Hutchings was an honorary member of the Montgomery County Medical Society and was a member of the Indiana State Medical Association. He graduated from the Medical College of Ohio, Cincinnati, in 1872.

JACOB B. OLIVER, of Brazil, practicing Negro physician in Brazil for forty-seven years, died September twenty-first, aged ninety-one years. Born a slave in Suffolk, Virginia, Dr. Oliver obtained a medical and theological education, and twice was offered the position of U. S. Minister to Liberia during the administration of President Woodrow Wilson.

CLOUD M. JACKSON, M.D., of Elizabethtown, aged sixty-one years, died September twenty-ninth. Dr. Jackson was a former coroner of Bartholomew county. He was a member of the Bartholomew County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Hospital College of Medicine, Louisville, in 1903.

WILLIAM HUMPHREYS MILLER, M.D., of Terre Haute, died October fourth, aged fifty-six years. Dr. Miller had practiced in Terre Haute since 1919. He was a specialist in ophthalmology and otolaryngology. Dr. Miller graduated from the Northwestern University Medical School in 1907, and was a member of the Vigo County Medical Society, the Indiana State Medical Association, and the American Medical Association. He held the certificate of the American Board of Otolaryngology and was a member of the American Academy of Ophthalmology and Otolaryngology.

WILLIAM EDGAR THOMAS, M.D., of Greensburg, died October first, aged sixty-one years. Dr. Thomas practiced in Greensburg for two years following his graduation from medical school, then practiced in Clarksburg from 1905 until 1917 when he returned to Greensburg. He was a member of the Decatur County Medical Society, the Indiana State Medical Association and the American Medical Association.

News Notes

Dr. C. H. McCaskey, of Indianapolis, was elected to service on the council of the American Academy of Ophthalmology and Otolaryngology at the recent meeting held in Washington, D. C.

Dr. B. R. Kirklin, of the Mayo Clinic, spoke on "The Manifold Uses of X-ray" before an audience of 400 White Cross Guild members in Indianapolis, October twelfth.

Dr. B. M. Merrell has moved from Advance, Indiana, where he has practiced for two years, to Indianapolis, where he is associated with the C.C.C. camp at Fort Harrison.

Little, Brown and Company, 34 Beacon Street, Boston, Massachusetts, have announced the establishment of a medical book department and invite the submission of manuscripts on medical and related subjects for publication.

Dr. R. C. Beeler, of Indianapolis, was elected to the executive council of the American Roentgen Ray Society at the annual meeting held in Atlantic City in September.

Dr. A. B. Scales has returned to Oakland City to practice medicine. He will also be associated with the Welborn-Walker Hospital in Evansville.

The Fort Wayne Medical Society has filed articles of incorporation with the secretary of state at Indianapolis.

Dr. Nathaniel R. Washburn, of Rensselaer, and Miss Mjerial Bjerken, of Minneapolis, Minnesota, were married in Minneapolis, September twenty-third. Dr. Washburn is associated with his father, Dr. I. M. Washburn, and with Dr. C. E. Johnson, in the Washburn-Johnson Clinic at Rensselaer.

Dr. William N. Wishard, Jr., of Indianapolis, and Miss Carolyn Louise Davis, of Loogootee, were married at the home of Dr. William N. Wishard, in Indianapolis, October tenth.

Indiana University instructors of a temporary clinic in speech or hearing defects have estimated that medical attention for such disorders is needed by at least two or three pupils in every Indianapolis public school class room. The clinic was established September first and was organized by the University with the aid of a ten thousand dollar grant from the Indiana chapter of Psi Iota Xi sorority. Thirteen school centers in the state will be visited in making the tests.

Clarence C. Hess, business manager of the Indianapolis Methodist Hospital, was elected vice-president of the American Protestant Hospital Association at its convention held in Dallas, Texas, in September. The Association is composed of 650 United States and Canadian Protestant hospitals.

Dr. Walter L. Bruetsch, staff physician at Central State Hospital, has returned after a ten-month leave of absence during which he studied new methods in psychiatric treatment at numerous hospitals in the United States and abroad.

The radio program of the American Medical Association, "To America's Schools—Your Health," will have "Seeing and Hearing Well" as its subject for broadcast on November second; and "Healthier Boys and Girls" as the subject for broadcast on November ninth. The programs are heard each Wednesday at one o'clock in the afternoon, central standard time.

The American Nurses Association through its nursing information bureau is distributing pamphlets entitled, "Wanted—A Real Nurse" and "Safe Nursing Care and Where to Ask for It" for guidance in obtaining the proper kind of nursing care. Physicians may secure copies of the pamphlet by addressing Nursing Information Bureau, 50 West 50th Street, New York City.

Dr. Thomas M. Conley, of Kokomo, and Miss Virginia Marshall, daughter of Dr. and Mrs. A. L. Marshall, of Indianapolis, were married October eighth, in Indianapolis.

Through error, the October JOURNAL carried an announcement to the effect that Dr. George L. Cole had opened an office in Frankfort. This is to advise our readers that "Dr." George L. Cole is a chiropractor, and we regret the inclusion of the news note in this magazine.

Dr. Warren Baker, of Westville, has had constructed a new building for his offices. The building contains private offices, laboratory, reception room, and a surgical department for the performance of minor operations, treatments, diathermy treatments, etc.

Dr. G. T. Ransom has opened an office in Mt. Vernon where he will conduct a general practice.

The Central Neuro-psychiatric Association will meet in Indianapolis in October of 1939. The invitation of Indianapolis was accepted at the meeting held in Minneapolis last month. Dr. Larue D. Carter and Dr. E. Rogers Smith have been appointed to serve on a local committee on arrangements. An attendance of approximately 150 psychiatrists is anticipated.

On October 6, 1938, the National Association of Fever Therapy Technicians, Inc., was formed. Miss Emily Mench, of Michael Reese Hospital, Chicago, was elected president to head the new organization during its first year. Anyone interested in membership in the organization may write for application blanks to Miss Lillian Conrad, secretary, 646 North Michigan Avenue, Chicago.

The editor of the Punjab (India) Medical Journal offers a prize of £10 to the contributor of an approved thesis on "Venereal Diseases." Entry fee in the competition is four shillings. There is no territorial bar for competitors, and the editor has the right to publish the thesis received. Entries must reach the editor of the Punjab Medical Journal, Banga, Punjab, India, by December 30, 1938.

The Indiana State Board of Health has had printed a limited supply of seals like the illustration shown here. They are available to Indiana physicians for use on their envelopes. A supply of the seals may be obtained without charge (as long as they last) by writing to Dr. H. B. Mettel, Indiana State Board of Health, Indianapolis, Indiana.



INDIANA UNIVERSITY NEWS NOTES

The following students of the Indiana University School of Medicine at Bloomington have been pledged to the Phi Rho Sigma professional medical fraternity. They are as follows:

Albert Ritz, Evansville; J. Merrill Johnson, Milltown; Joseph Buchmeier, Indianapolis; James Tribby, Indianapolis; Norman Cook, Indianapolis; John Mader, Indianapolis; Donald Hampshire, Waterloo; Donald McCartney, Fairmount; Robert Switzer, Bloomington; Richard Pryor, Bloomington, and James Betty, French Lick.

Last year was the most important in the history of the Indiana University School of Medicine, with construction of a new \$600,000 clinical building and various other improvements, according to Dr. W. D. Gatch, dean of the school, when he spoke to incoming students of the school of medicine in Indianapolis.

High standards of the school, Dr. Gatch pointed out, are reflected in the fact that it has the Class A rating of the American Medical Association, that the hospitals of the medical center are approved

by the American College of Surgeons for internships and residencies, and that graduates of the school hold important positions in such centers as the Mayo Clinic, the Billings Hospital, Ford Hospital, Harvard Medical School, Johns Hopkins University Medical School and the Rockefeller Institute.

Every member of last year's graduating class passed every subject in the state board examination, except one who failed in one subject.

During the year, the dean related, thirty-nine papers written by members of the faculty were published in journals of national circulation. The research committee established four fellowships, one each in otolaryngology, x-ray, medicine and orthopedics, and purchased thirty milligrams of radium, thus bringing the center's supply up to 200 milligrams, the amount required for recognized cancer clinics. Two assistant residencies were established in surgery and one residency was established in roentgenology.

Tracing developments in the curriculum, Dr. Gatch said that because of the higher standards now required, present undergraduates are doing what formerly was post-graduate work.

Since the first of the year the medical school and center have entertained the Western Surgery Association, the medical post-graduate course in conjunction with the Indiana State Medical Association, a post-graduate course in otolaryngology and two meetings of the Indiana Advisory Health Council.

Dr. B. D. Myers, dean of the university medical school in Bloomington, introduced the incoming class and pointed out that there were 900 applicants for the 125 available enrollments in the 1938 class. Miss Cordelia Hoeflin, supervisor of the nurses training school, introduced the incoming class of nurses, and Miss Lute Trout introduced new students in dietetics.

A total of 726 students are enrolled in the Indianapolis divisions of Indiana University, it was announced here this week. There are 323 students in the medical division, 137 in the dental school, 185 in the nurses' training school and 81 are enrolled in the social service division.

Indiana University's combined enrollment for the Bloomington and Indianapolis divisions now stands at 6,106, setting a new high record and representing the sixth successive annual increase.

With 50 to 100 students expected still to register during the fall semester, the present total registration of 6,106 represents an increase of 453, or eight per cent over the final enrollment for the first semester of 1937-38.

Incomplete enrollment figures for the Indiana University Extension Division show a total of 6,780 students taking extension work, making a grand total of 12,886 students in residence at Bloomington and Indianapolis and enrolled in extension classes.

Societies — Institutions

INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

First Meeting

(Indianapolis Session, October 4, 1938)

The Council of the Indiana State Medical Association convened for a luncheon-business meeting in parlors D and E of the Indianapolis Athletic Club, Indianapolis, at 1:00 p. m., Tuesday, October 4, 1938, with the chairman, Dr. M. A. Austin of Anderson, presiding. Roll call showed the following present:

Councillors:

- 1st district—I. C. Barclay, Evansville.
- 2nd district—H. C. Wadsworth, Washington.
- 3rd district—W. H. Garner, New Albany.
- 5th district—O. O. Alexander, Terre Haute.
- 6th district—Samuel Kennedy, Shelbyville.
- 7th district—C. J. Clark, Indianapolis.
- 8th district—M. A. Austin, Anderson.
- 9th district—F. T. Romberger, Lafayette.
- 10th district—N. K. Forster, Hammond.
- 11th district—Ira Perry, North Manchester.
- 12th district—A. J. Sparks, Fort Wayne.
- 13th district—W. B. Christophel, Mishawaka.

Officers:

- President—Herman M. Baker, Evansville.
- President-elect—E. M. VanBuskirk, Fort Wayne.
- Treasurer—A. F. Weyerbacher, Indianapolis.
- Editor of THE JOURNAL—E. M. Shanklin, Hammond.

Executive Committee:

- T. A. Hendricks, executive secretary.

Legislative Committee:

- N. M. Beatty, Indianapolis, chairman.

Luncheon Guests:

- V. K. Harvey, secretary, State Board of Health.
- H. B. Mettel, director, Bureau of Maternal and Child Health.
- O. W. Greer, director, Services for Crippled Children, State Department of Public Welfare.

By unanimous consent, the reading of the minutes of the midwinter meeting of the Council, held in Indianapolis on January 16, 1938, was dispensed with, as these minutes were published in the February, 1938, issue of THE JOURNAL.

Councilor district reports were accepted as printed in the September, 1938, issue of THE JOURNAL.

The chairman called attention to the continued conflict in district meetings, saying that three district societies plan to hold their meetings on November 2, 1938. In order to avoid conflicts in these meetings he suggested that each councilor write the headquarters office before setting a definite meeting date for his district.

Luncheon

Doctors Greer, Harvey and Mettel spoke briefly during the luncheon concerning the activities of their respective departments and expressed their appreciation for the cooperation they had received during the year from the Council and the officers of the State Medical Association.

Executive Session Following Luncheon

Following a discussion of matters pertaining to THE JOURNAL, Dr. Shanklin suggested that Miss Hope Toman

of THE JOURNAL staff be given the title of Assistant Editor. Dr. VanBuskirk's motion to this effect was passed unanimously.

NEW BUSINESS

1. Upon the motion of Dr. Clark, seconded by Dr. Forster, the report of the Auditing Committee was accepted as printed in the September, 1938, JOURNAL.

2. Postgraduate assembly expenses. It was explained that the expense incurred in putting on the spring postgraduate course amounted to \$1,098.05, this expense to be shared equally by the Indiana University School of Medicine and the State Medical Association. As only \$300 was allowed the Graduate Education Committee by the Budget Committee for 1938, the State Association has not yet paid its full share of this expense. Dr. Clark moved that the Council appropriate sufficient funds to take care of this deficit. This motion was seconded by Dr. Sparks and carried.

3. Election of editor of THE JOURNAL for 1939. Upon the motion of Dr. Forster, seconded by Drs. Clark and Romberger, Dr. E. M. Shanklin was unanimously re-elected editor of THE JOURNAL for 1939.

4. Election of two members to serve on the editorial board for three years. Upon the motion of Dr. Sparks, seconded by Dr. VanBuskirk, Dr. Lyman T. Rawles of Fort Wayne was elected unanimously to succeed Dr. L. P. Harshman, and upon the motion of Dr. Clark, Dr. Edgar F. Kiser of Indianapolis was elected unanimously to succeed Dr. Rupel, as members of the editorial board.

5. Dr. Beatty, chairman of legislative committee, made a short report on the work of his committee.

6. Organization of Gibson and Pike County Medical Societies into a joint society. It was the consensus of the Council that physicians residing in a county where the county medical society has ceased to function should be allowed to hold their membership in the adjoining county society most convenient for them to attend. This is in accordance with the by-laws of the State Association.

7. Dr. Forster made the motion that no special attempt be made to make the 1939 annual session an anniversary session. This will be the ninetieth annual session of the Association. This motion was seconded by Dr. Wadsworth and passed.

8. A. M. A. survey of medical care for all the people. As a matter of information, Dr. Austin reported to the Council that the Executive Committee had voted to have the executive secretary make a memorandum and survey of all the questionnaires returned to the headquarters office by the various county medical societies. The secretary then should forward these questionnaires to the American Medical Association in order that the American Medical Association may make any record it desires of the information contained in the survey blanks.

9. Dr. Baker spoke of the recommendations regarding changes in the personnel and additional personnel in the headquarters office which he would make in his presidential address to be read in the general meeting on Wednesday morning, October 5. In addition to the suggestion that Miss Hope Toman be given the title of assistant editor (on which the Council already had passed), he recommended that Miss Lucille Kribs be given the title of assistant secretary. It was taken by consent that this change in personnel also was approved by the Council.

10. The date for the midwinter meeting of the Council was set tentatively for Sunday, January 15, 1939, this date to be changed by the Executive Committee if it sees fit to do so.

11. The financial burden placed on the county society which entertains the annual session of the Association,

the need for additional help in the central office due to the trend of the times, and the proposed recommendation of the president to expand postgraduate activities, led to a discussion of the feasibility of raising the State Association dues at this time. It was the consensus of the Council that the dues should be increased from \$7.00 per year to a \$12.00 annual membership fee.

Upon the motion of Dr. Romberger, seconded unanimously, the Council was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

THE COUNCIL

Second Meeting

(Indianapolis Session, October 6, 1938)

The second meeting of the Council was called to order at 10:15 a. m., Thursday, October 6, 1938, in the Green Room of the Indianapolis Athletic Club, Indianapolis, immediately upon adjournment of the final meeting of the House of Delegates.

The minutes of the previous meeting were not read.

Roll call showed the following members present:

Councilors:

- 1st district—I. C. Barelay, Evansville.
- 2nd district—H. C. Wadsworth, Washington.
- 3rd district—W. H. Garner, New Albany.
- 4th district—M. C. McKain, Columbus.
- 5th district—O. O. Alexander, Terre Haute.
- 6th district—Samuel Kennedy, Shelbyville.
- 7th district—C. J. Clark, Indianapolis.
- 8th district—M. A. Austin, Anderson.
- 11th district—Ira Perry, North Manchester.
- 12th district—A. J. Sparks, Fort Wayne.
- 13th district—W. B. Christophel, Mishawaka.

Officers:

- Herman M. Baker, Evansville, president.
- Karl R. Ruddell, Indianapolis, president-elect, 1939.
- A. F. Weyerbacher, Indianapolis, treasurer.
- E. M. Shanklin, Hammond, editor of THE JOURNAL.
- T. A. Hendricks, executive secretary.

Following a discussion of the resolution passed by the House of Delegates instructing the councilors to take up the matter of an increase in the state membership dues with all of the members in their respective districts, along with reasons for an increase, Dr. Alexander made a motion that the chairman of the Council and the executive secretary brief all of the points discussed and send them out to each councilor so that these points may be brought before each district meeting, and if the councilor sees fit, to the attention of each county society. This motion was seconded by Dr. Clark, and passed.

Dr. Baker spoke of the fact that due to emergencies the headquarters office was running very close to its budget and in order to employ extra help it would be necessary to use some of the reserve fund. Dr. Clark moved that the Council authorize the Budget Committee to make an expenditure of such funds as may be necessary from the reserve fund to take care of the present demand for extra help in the headquarters office. This motion was passed unanimously.

Dr. Shanklin suggested that an organization section, similar to that carried in the A. M. A. Journal, which will tell the members of the Association "just what goes on in the headquarters and THE JOURNAL offices" be started in THE JOURNAL of the Indiana State Medical Association. It was taken by consent that this should be done.

There being no further business, the Council was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

INDIANA STATE MEDICAL ASSOCIATION

HOUSE OF DELEGATES

(Indianapolis Session, 1938)

First Meeting

The first meeting of the House of Delegates convened at 4:15 o'clock, Tuesday afternoon, October 4, 1938, in the Murat Theater, Indianapolis, the president, Dr. Herman M. Baker of Evansville, presiding.

Dr. George R. Daniels moved that the signed attendance slips be accepted as the roll call. Motion seconded by Dr. A. B. Graham and carried. These slips showed the following present:

<i>County</i>	<i>Delegates</i>
Allen	Maurice R. Lohman, Fort Wayne William C. Wright, Fort Wayne
Bartholomew	W. L. Green, Columbus
Boone	Charles O. Weddle, Lebanon
Carroll	George W. Wagoner, Burrows
Cass	B. W. Egan, Logansport
Clay	John C. Shattuck, Brazil
Clinton	Melville F. Boulden, Frankfort
Dearborn-Ohio	Edwin L. Libbert, Lawrenceburg
Decatur	I. M. Sanders, Greensburg
DeKalb	M. E. Klingler, Garrett
Delaware-Blackford	Charles L. Botkin, Muncie
Dubois	H. C. Knapp, Huntingburg
Elkhart	A. C. Yoder, Goshen
Floyd	P. H. Schoen, New Albany
Fountain-Warren	Simoon Lambright, Covington
Fulton	A. E. Stinson, Rochester
Gibson	O. T. Brazelton, Princeton
Hancock	J. E. Ferrell, Fortville
Harrison	William E. Amy, Corydon
Hendricks	O. T. Scamahorn, Pittsboro
Henry	Walter M. Stout, Newcaste
Howard	R. E. McIndoo, Kokomo
Huntington	G. M. Nie, Huntington
Jackson	H. P. Graessle, Seymour
Jasper-Newton	A. R. Kresler, Rensselaer
Jefferson	Nicholas A. Kremer, Madison
Jennings	D. W. Matthews, North Vernon
Johnson	William E. Sutton, Edinburgh
Knox	R. B. Cochran, Vincennes
Kosciusko	E. Winton Thomas, Warsaw
Lake	Clifford M. Jones, Whiting T. W. Oberlin, Hammond James M. White, Gary
LaPorte	Jon N. Kelly, LaPorte
Lawrence	H. C. Raggsdale, Bedford
Madison	D. S. Quickel, Anderson C. V. Rozelle, Anderson
Marion	E. O. Asher, New Augusta James F. Balch, Indianapolis Raymond C. Beeler, Indianapolis Ralph L. Lochry, Indianapolis C. H. McCaskey, Indianapolis W. P. Morton, Indianapolis Lacey L. Shuler, Indianapolis O. W. Sicks, Indianapolis M. J. Spencer, Indianapolis James B. Stalker, Indianapolis Charles F. Thompson, Indianapolis
Marshall	A. A. Thompson, Tyner
Monroe	Hugh S. Ramsey, Bloomington
Montgomery	T. Z. Ball, Crawfordsville
Morgan	H. H. Dutton, Martinsville
Noble	H. A. Williams, Kendallville
Orange	George Dillinger, French Lick
Owen	Robert H. Pierson, Spencer
Parke-Vermillion	S. C. Darroch, Cayuga
Pike	T. R. Rice, Petersburg
Posey	J. R. Ranes, Mount Vernon
Pulaski	T. E. Carneal, Winamac
Ripley	George S. Row, Osgood

<i>County</i>	<i>Delegates</i>
Rush	Robert D. Spindler, Milroy
St. Joseph	Erwin Blackburn, South Bend Alfred S. Giordano, South Bend M. D. Wygant, Mishawaka Floyd S. Napper, Scottsburg J. C. Glackman, Rockport J. T. Oliphant, Farmersburg R. M. Copeland, Vevay Gordon A. Thomas, Lafayette Earl VanReed, Lafayette S. M. Cotton, Goldsmith Robert R. Acre, Evansville Minor Miller, Evansville P. E. Yunker, Evansville Donald L. Colglazier, Salem Max M. Gitlin, Bluffton Paul A. Garber, South Whitley
Scott	
Spencer	
Sullivan	
Switzerland	
Tippecanoe	
Tipton	
Vanderburgh	
Washington	
Wells	
Whitley	

Councillors

- 1st district—I. C. Barclay, Evansville.
2nd district—H. C. Wadsworth, Washington.
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8th district—M. A. Austin, Anderson.
9th district—Floyd T. Romberger, Lafayette.
10th district—N. K. Forster, Hammond.
11th district—Ira E. Perry, North Manchester.
12th district—A. Jerome Sparks, Fort Wayne.
13th district—W. B. Christophel, Mishawaka.

Past Presidents

- William R. Davidson, Evansville.
E. M. Shanklin, Hammond.
Charles N. Combs, Terre Haute.
F. W. Cregor, Indianapolis.
G. R. Daniels, Marion.
C. E. Gillespie, Seymour.
A. B. Graham, Indianapolis.
F. S. Crockett, Lafayette.
J. H. Weinstein, Terre Haute.
E. E. Padgett, Indianapolis.
R. L. Sensenich, South Bend.

Officers

- Herman M. Baker, Evansville, president.
E. M. VanBuskirk, Fort Wayne, president-elect.
A. F. Weyerbacher, Indianapolis, treasurer.
T. A. Hendricks, executive secretary.
H. G. Hamer, Indianapolis, delegate to the A. M. A.

Dr. W. E. Amy, acting chairman of the Committee on Credentials, announced that a quorum of delegates was present, according to the signed attendance slips, and the chairman declared the House open and ready for the transaction of business.

Motion was made by Dr. Romberger, seconded by Dr. Beeler, and passed, that the House send to Dr. W. F. Carver of Albion, chairman of the Committee on Credentials, greetings and best wishes for a rapid and complete recovery from a recent illness.

THE CHAIRMAN: For your information, gentlemen, the By-Laws of this Association may be amended at any annual session by a majority vote of all delegates present at that session, after the amendment has laid on the table for one day. The House of Delegates may amend any article of the Constitution by a two-thirds vote of all delegates present at any annual session provided that such amendment shall have been presented in open meeting at the previous annual session and that it shall have been published twice during the year in THE JOURNAL of the Association. The House will recall that the Constitution of the State Association has been recodified this year, and copies are available at the headquarters office.

(At this time the House of Delegates gave a rising tribute to the memory of Dr. E. D. Clark of Indianapolis, president of the State Association in 1937; Dr. J. R. Pugh of Hammond, delegate from Lake county; Dr. William H. Kennedy of Indianapolis, chairman of the Executive Committee from 1931 to 1936, and Dr. C. P. Emerson of Indianapolis, chairman of the Committee on Medical Education and Hospitals.)

Motion that the reading of the minutes of last year's meetings be dispensed with, as these minutes were printed in the November, 1937, JOURNAL, was made by Dr. Clark, seconded by Dr. Garber, and carried.

THE CHAIRMAN: Your attention is called at this time to Article V in the newly adopted Constitution which gives the A. M. A. delegates and alternates the right to sit in the House of Delegates, have the right of the floor, but not the right to vote. All members of the Association who desire to sit in on this meeting to hear the deliberations of the House are welcome. The presidents and secretaries of county medical societies are particularly urged to attend.

The next item of business is the appointment of reference committees. In accordance with Chapter IX, Section I, of the By-Laws of the Association, reference committees have been appointed by the president and are published in the October JOURNAL and the handbook of this House. These committees are to serve during the session for which they are appointed. These reference committees should not be confused with the all-year round standing committees. To these committees shall be referred all reports, resolutions and measures presented to the House of Delegates at this session, excepting such matters as properly come before the Council, and the recommendations of these committees shall be submitted at the next meeting of the House of Delegates on Thursday morning, October 6, at the breakfast meeting, for acceptance in the original or modified form, or for rejection. As these reference committees are in your handbook, I will not read these names.

These committees should organize immediately after the adjournment of the House today and determine a definite place and time of meeting, each committee chairman turning over to the Executive Secretary a note in writing stating time and place his committee is to meet in order that this information may be placed on the bulletin board at the registration desk.

These reference committees as previously appointed and published are as follows:

SECTIONS AND SECTION WORK

Earl Van Reed, Lafayette, chairman	(Tippecanoe)
P. H. Schoen, New Albany	(Floyd)
R. H. Pierson, Spencer	(Owen)
M. D. Wygant, Mishawaka	(St. Joseph)
Carl Clark, Oakland City	(Gibson)

RULES AND ORDER OF BUSINESS

O. T. Scamahorn, Pittsboro, chairman	(Hendricks)
J. R. Ranes, Mount Vernon	(Posey)
J. C. Shattuck, Brazil	(Clay)
B. W. Egan, Logansport	(Cass)
R. E. Cochran, Vincennes	(Knox)

MEDICAL EDUCATION AND HOSPITALS

O. O. Alexander, Terre Haute, chairman	(Vigo)
R. L. Sensenich, South Bend	(St. Joseph)
M. B. Catlett, Fort Wayne	(Allen)
Walter M. Stout, Newcastle	(Henry)
R. R. Acre, Evansville	(Vanderburgh)

PUBLIC POLICY AND LEGISLATION

Jesse E. Ferrell, Fortville, chairman	(Hancock)
T. W. Oberlin, Hammond	(Lake)
O. R. Spigler, Terre Haute	(Vigo)
E. O. Asher, New Augusta	(Marion)
Charles Gillespie, Seymour	(Jackson)

PUBLICITY

C. V. Rozelle, Anderson, chairman	(Madison)
James F. Balch, Indianapolis	(Marion)
Simeon Lambright, Covington	(Fountain-Warren)
A. E. Stinson, Rochester	(Fulton)
M. F. Boulden, Frankfort	(Clinton)

HYGIENE AND PUBLIC HEALTH

C. L. Botkin, Muncie, chairman	(Delaware-Blackford)
W. P. Morton, Indianapolis	(Marion)
Albert Fisher, North Judson	(Starke)
W. L. Green, Columbus	(Bartholomew)
C. M. Donahue, Carmel	(Hamilton)

AMENDMENTS TO CONSTITUTION AND BY-LAWS

M. R. Lohman, Fort Wayne, chairman	(Allen)
Will Thompson, Liberty	(Wayne-Union)
Max Gitlin, Bluffton	(Wells)
Paul Garber, South Whitley	(Whitley)
E. L. Libbert, Lawrenceburg	(Dearborn-Ohio)

REPORTS OF OFFICERS

J. T. Oliphant, Farmersburg, chairman	(Sullivan)
H. P. Graessle, Seymour	(Jackson)
A. C. Yoder, Goshen	(Elkhart)
Minor Miller, Evansville	(Vanderburgh)
W. C. Wright, Fort Wayne	(Allen)

COMMITTEE ON CREDENTIALS

O. W. Sicks, Indianapolis, chairman	(Marion)
T. Z. Ball, Crawfordsville	(Montgomery)
H. C. Knapp, Huntingburg	(Dubois)
J. C. Glackman, Rockport	(Spencer)
A. A. Thompson, Tyner	(Marshall)

COMMITTEE ON MISCELLANEOUS BUSINESS

Hugh S. Ramsey, Bloomington, chairman	(Monroe)
Philip E. Yunker, Evansville	(Vanderburgh)
S. M. Cotton, Goldsmith	(Tipton)
Ralph Lochry, Indianapolis	(Marion)
King L. Hull, Bloomfield	(Greene)

REPORTS OF OFFICERS

THE CHAIRMAN: Most of these reports except for the address from the chair and the address of the president-elect are printed in the September issue of THE JOURNAL and in the handbook of the House of Delegates, but each officer and committee chairman will be given five minutes to make any additions or explanation to the reports already published.

The address of the president, to be made before the general meeting on Wednesday, will be referred to the Reference Committee on Reports of Officers.

ADDRESS OF THE PRESIDENT-ELECT

DR. E. M. VAN BUSKIRK: Mr. Chairman, and members of the House of Delegates of the Indiana State Medical Association:

I wish at this time to express my deep appreciation for the high honor conferred upon me by being selected as president-elect of our State Medical Association, and I will strive to be of the greatest possible service to maintain the staunch bulwark of our organization, and to continue the excellent work of my predecessors. We are all striving toward a common goal, and this Medical Society is our chief line of defense.

It has been my good fortune to have served in the House of Delegates and on the Council for a number of years, and I feel that our important medical problems are discussed in the organization by men with a vast amount of knowledge, ability and understanding. We should be grateful that all these persons give so much of their time and consideration so willingly, and in this respect pass on to them valuable informa-

tion. Frequently, all are not in accord with the principles of a particular procedure, but nevertheless, they serve to enlighten us as to their motives and thoughts on the subjects under discussion, and help us solve the difficulty. I am sure we all feel that, regardless of our differences of opinion, we can arrive at a logical conclusion and apply that which offers the greatest advantage for the benefit of mankind. In addition, our executive office gives us a great deal of advance information regarding the activities of the American Medical Association and the organizations inimical to present medical thought. The trend of progress is ever moving forward, and it is up to us to be well informed so that no one can say we lagged behind. Years ago the offices of the state and county organizations were of an honorary nature, but that status has changed considerably, and now it is vitally necessary that all be on the alert so that they can meet the problems which might arise. Their duties are many, and gradually many more are being added as our organization progresses. At this time I wish to say that our president, Dr. Herman M. Baker, has done outstanding work in the past year, and has measured up to all of his duties with unusual ability and efficiency, and I would like to express my sincere gratitude for such very meritorious service.

Beginning next year (1939), our own State Medical Association will have been in existence ninety years. These ninety years represent the period of nearly all the great discoveries and achievements in medicine, during which much of our time was devoted to research and study for scientific improvement of our great profession. What will we be able to say at the one hundredth anniversary of our State Organization?

These next few years will probably answer the question and may determine our very existence as a profession, whose most sincere motive is to strive in a scientific way for its improvement, so that the great masses of people would receive these benefits. The next few years will be a very critical period, and what follows will depend to a great extent on how well we are guided and how well we conduct ourselves.

This is an ever-changing world, which must be reorganized, and problems must be met and solved. New adjustments must be made in every field, but as long as we maintain our fundamental ideas and principles, and meet the altered circumstances squarely and carry on, to the best of our ability in the true spirit of unselfishness and service, we will have done everything in conformity with our democratic processes.

However, the field of medicine itself has changed considerably, and now it is on the threshold of a new era, an era of preventive medicine, the goal being prophylaxis and medical care for all individuals. This particular thing the people of our nation are demanding, that is, that some plan be evolved whereby every citizen have an opportunity to obtain medical attention if he so desires. It is our purpose to care for the mental and physical needs of mankind, with the highest medical service obtainable, and it is our duty to see to it that laws are passed and administered in such a manner that we can feel that this medical service is given right and not pampered by too many go-betweens and misguided officious co-workers.

The Indiana State Medical Association is one of the prominent organizations in the nation, being aggressive, alert, and fearless with a profound ability to meet any type of circumstances fairly and with a sense of balance. May we continue to do so.

As to my program for 1939, I hope to conduct myself in such an able manner as was done by our president of 1938 and the distinguished men before him. I expect to be guided by the policies of this House of Delegates and our Council, and again I wish to express my deep appreciation for this high honor conferred upon me by this body.

Referred to Reference Committee on Reports of Officers.

REPORT OF THE EXECUTIVE SECRETARY

Referred to Reference Committee on Reports of Officers.

REPORT OF THE TREASURER

Referred to Reference Committee on Reports of Officers.

REPORT OF CHAIRMAN OF THE COUNCIL

DR. M. A. AUSTIN: As chairman of the Council of the Indiana State Medical Association it has been for me to hear more complaints than the average member concerning actual conditions over the state, and far too many of them are undesirable. Only a few of us, it seems, really appreciate the seriousness of present trends, and too many criticisms have been sponsored because of our apparent inactivity. The many hours some of us have given to gathering information and preparing tentative defensive plans will never be known. Active propaganda cannot be undertaken until we know the means, methods, and strength of those who are preparing to pigeonhole the medical profession and undo much that our people have gained by their medical independence. The American Medical Association also has been assailed because they have not come out with an active propaganda combating the activities of various organizations propagated or sponsored by so-called social security groups. But in the background is the fact that governmental regulations, controlling classification of income groups, can by the stroke of a pen transform an educational organization into a trade organization for taxation purposes, and the present tax exemption we hold might be immediately taken away, costing the A. M. A. approximately \$200,000 a year, and a similar situation might be applied here with our state organization. Thus we are handicapped in many ways, in what we might do otherwise.

The Vanderburgh County Medical Society sponsored a resolution this summer asking for some more constructive program and our president, Doctor Baker, felt that such was very worthwhile. The matter was brought before the Executive Committee and it was deemed advisable to call a special meeting of the Council with all past presidents, and the work of the Executive Committee and this special joint committee has given us the outline which has been distributed to the members of the House of Delegates. It stresses the necessity of maintaining the present physician-patient relationship. It asks for greater publicity concerning the work of the profession. It emphasizes the necessity of education of the laity by speakers over the state, who can show the dangers of state medicine or the socialization of medicine. It demands that every physician must do his part in meeting the needs of the medical indigent and the low income class, and that every community must study its own problems and find a way to solve them. Far too many complaints have been made concerning excessive bills, and an appeal board should be established in every county to which questions can be referred. It has been suggested that the president of each county society should be chairman of such a board and that he appoint two other members to confer with him, but whose names he need not divulge. The question of payment for indigent services by County, State or Federal funds must be carefully studied in every community as this problem can not be solved with any universal plan. Your committee has advised the inauguration of *hospital insurance*, since it has not been medical charges that have been so appalling in catastrophic illness, but the expense of hospitalization and, in far too many patients, the over-use of mechanized medicine. In one case which I investigated for an insurance company recently I found that 22 complete blood examinations had been ordered in thirty days during a pneumonia.

Finally, I wish to commend the work of the committee that developed the so-called *Indiana Plan*, which makes us responsible for leadership to make unnecessary the things that proponents of state and socialized medicine

say should be done because of economic conditions more than our neglect. Every delegate must carry back to his society the fact that only by united effort and co-operation can we hope to turn the tide that is taking us beyond our depths in stormy waters, and if this happens, then each of us probably will have to grab at anything possible to save ourselves from economic and professional oblivion.

And finally, I have this further suggestion, with every member working to do all he can do and must do, the centralization of effort must be crystallized without demanding so much sacrifice of time and money by the state officers. An increase in state dues should be seriously considered and a resolution to that effect was presented in the last meeting of the Council, but that is a matter to be decided by this body only.

THE CHAIRMAN: The report of the chairman of the Council which is printed in the handbook of the House of Delegates is referred to the Reference Committee on Reports of Officers. The supplemental report just read is referred to the Reference Committee on Public Policy and Legislation.

REPORTS OF STANDING AND SPECIAL COMMITTEES

Committee on Credentials

Referred to Reference Committee on Credentials.

THE CHAIRMAN: At this time Mr. Hendricks is going to pass out to you copies of the report of the committee that has been working on the national health situation and also the report of the special session of the House of Delegates of the American Medical Association. Meanwhile we will hear from the chairman of the Executive Committee, Doctor Nafe.

Executive Committee

DR. C. A. NAFE: You will note that on pages 30 to 51 inclusive in the handbook is reported the deliberations of the Executive Committee throughout the year. Necessarily that report is rather long but at the same time it is not entirely inclusive of everything that we covered during the year. Much material has been presented to us by the executive secretary and the various committees. I want particularly to call your attention to a recommendation of the Executive Committee on page 37 that the By-Laws should be clarified concerning the membership of a physician, that is, as to what society he should belong. In one instance a physician whose legal residence is in one county and his office in another county, joined the medical society of still another county. The Executive Committee thinks that that point should be clarified.

The Executive Committee has been exceptionally well pleased with the fine work done by the executive secretary and his corps of assistants. As you know, they have had a lot more work put on them this year.

Furthermore, I, as chairman of the committee, wish to express my gratitude to the other members of the committees, Dr. McCaskey, Dr. Baker, Dr. Austin and Dr. VanBuskirk, for the large amount of time and effort they have given to the work of the committee, and the many miles it is necessary for them to travel to meet regularly throughout the year with this committee.

THE CHAIRMAN: The report of the Executive Committee as printed in the handbook, except that portion dealing with the change in the By-Laws, is referred to the Reference Committee on Reports of Officers. The recommended change in the By-Laws is referred to the Reference Committee on Constitution and By-Laws.

Committee on Arrangements

Referred to Reference Committee on Miscellaneous Business.

Committee on Scientific Work

Referred to Reference Committee on Sections and Section Work.

Committee on Public Policy and Legislation

Referred to Reference Committee on Public Policy and Legislation.

Bureau of Publicity

Referred to Reference Committee on Publicity.

Committee on Civic and Industrial Relations

Referred to Reference Committee on Public Policy and Legislation.

Committee on Medical Education and Hospitals

Referred to Reference Committee on Medical Education and Hospitals.

Committee on Public Relations

Referred to Reference Committee on Public Policy and Legislation.

JOURNAL Publication Committee

Referred to Reference Committee on Reports of Officers.

Committee on Necrology and Historian

Referred to Reference Committee on Miscellaneous Business.

Committee on Secretaries' Conference

Referred to Reference Committee on Miscellaneous Business.

Committee on Graduate Education

Referred to Reference Committee on Medical Education and Hospitals.

Committee on Veterans' Affairs

Referred to Reference Committee on Public Policy and Legislation.

Committee on Study of Health Insurance

Referred to Reference Committee on Public Policy and Legislation.

Committee on Study of High School Athletics

Referred to Reference Committee on Hygiene and Public Health.

Committee on State Fair

Referred to Reference Committee on Publicity.

Committee on Mental Health

Referred to Reference Committee on Hygiene and Public Health.

Committee on Prevention of Traffic Accidents

Referred to Reference Committee on Hygiene and Public Health.

State Board of Health Liaison Committee to Deal With Social Security Act

Referred to Reference Committee on Public Policy and Legislation.

Subcommittee to Study Maternal Morbidity and Mortality Rates for Indiana

Referred to Reference Committee on Public Policy and Legislation.

Liaison Committee With the Indiana Crippled Children's Bureau

Referred to Reference Committee on Public Policy and Legislation.

Auditing Committee

Referred to the Council.

Committee on Control of Cancer

Referred to Reference Committee on Hygiene and Public Health.

Committee on Syphilis Control

Referred to Reference Committee on Hygiene and Public Health.

Committee on Occupational Diseases

Referred to Reference Committee on Hygiene and Public Health.

Committee to Study Cultists and Irregular Practitioners

Referred to Reference Committee on Public Policy and Legislation.

Medical Education Investigation Committee

A year ago at the annual meeting of this Association, this House of Delegates authorized and directed the president, Dr. E. D. Clark, to appoint a committee to make a factual survey of medical education in Indiana.

Turning to the president's address for direction, we found he had discussed the subject in four questions. These questions will be enumerated and later discussed in detail.

First, (a) Does the Council on Medical Education and Hospitals of the American Medical Association hold that there should be more full-time teachers? (b) Should the administrative duties require a full-time dean?

Second, Questions as to the method in selection of candidates for entrance into the first or freshman year of the medical course.

Third, Inquiry concerning the purport of a report of the Council on Medical Education and Hospitals made following inspection of our Medical School in 1934.

Fourth, The attitude of the Council on Medical Education and Hospitals of the American Medical Association as to the desirability of having a medical school divided as is the Indiana School of Medicine, the third academic year or first freshman year in the medical course being given at Bloomington, and the sophomore, junior, and senior years in medicine being given at Indianapolis.

Your Committee, in the pursuit of its study, gave opportunity for every one interested to be heard. It spent a day with Dean Gatch and Dean Myers and selected members of their respective staffs at Indianapolis and Bloomington. Inspection of the physical facilities in each place and prolonged conferences with the faculty representatives were had. The Committee called upon the Secretary of the Council on Medical Education and Hospitals of the American Medical Association and, after producing credentials showing the instructions of this House of Delegates, were permitted to study the voluminous report covering inspection of our Medical School as well as the confidential graph which showed our standing relative to the seventy-six other medical schools in the United States. The Committee devoted one day to a public hearing in Indianapolis to which anyone interested was invited, through an advertisement in our medical JOURNAL, to come and discuss the subject under consideration. Further, a cross-section of graduate opinion concerning the school was sought by sending a questionnaire to every fourth graduate of Indiana University School of Medicine licensed during the past twenty years. Personal interviews were sought and in several instances obtained from older members of the profession or University having personal knowledge of the negotiations leading up to the fusion of Indiana Medical College and the State College of Physicians and Surgeons into the medical department of Indiana University. Educators outside the state were interviewed personally and by letter. An analysis and graph was made of thirty medical schools from the standpoint of faculty numbers. In August, a conference with the Board of Trustees of Indiana University was sought and had during September.

It should be apparent from this that the Committee has earnestly sought information from all available sources, believing that some helpful suggestions might be presented.

Question Number 1 is divided into two parts:

(a) Does the Council on Medical Education and Hospitals of the American Medical Association hold that there should be more full-time teachers?

On inquiry we learned that the Council on Medical Education and Hospitals approves the employment where possible of full-time teachers as heads of departments. Part-time teachers conducting an active private practice

are recognized as having valuable experience not so available to full-time professors; however, it is questioned if the part-time professor would have sufficient time to devote to departmental problems after the demands of a busy practice have been fulfilled.

(b) Should the administrative duties require a full-time dean?

Preference was expressed by the Council for the full-time administrator who as dean could devote his full talents to the educational problems arising from the conduct of an approved medical school. A number of well known educators expressed opinion in harmony with that of the Council.

Question Number 2 asks the method in selection of candidates into the first or freshman year of the medical course. The method in selection of candidates for entrance into the first or freshman year of the medical course is determined largely by the dean at Bloomington.

On inquiry, Dean Myers outlined in a letter the procedure followed. In answer to the criticism that out-of-state students were taken to the exclusion of state students, he pointed out that less than 4% of the present enrollment and, over the past ten years, only 4.9% of the graduates were from out-of-state.

Comment 1: It would seem from this and other reports that Indiana University follows closely the present accepted method of other schools in the selection of candidates.

Comment 2: In the opinion of the Committee, every effort should be made to afford full opportunity, and preference should be given, to all qualified citizens of the State who wish to obtain a medical education in our own State University. However, the Committee recognizes the possible advantages accruing to the student body from the admission of out-of-state students who have exceptional ratings.

Question Number 3 suggested inquiry should be made concerning the purport of a report of the Council on Medical Education and Hospitals made following inspection of our medical school in 1934.

The Committee held a conference with the executive secretary of the Council on Medical Education and Hospitals of the A.M.A.

The A.M.A. organized the Council about the turn of the century to improve the teaching of medicine and to elevate the standards of hospitals.

In the field of medical education they have achieved outstanding results in supplanting the previous proprietary medical schools, some 175 in number, with schools affiliated with state or other universities. Through the willing cooperation of the schools with the Council, standards have been gradually raised to a point where American schools are equal to or better than schools in other lands.

Part of the process by which this improvement has been accomplished, the Council has, from time to time, sent experienced investigators to visit each institution. A careful inspection of facilities and conferences with the dean and heads of departments, requiring several days to complete, was supplemented by submission of a voluminous questionnaire covering the school as a whole as well as each department in detail. From the information supplied by each school in detailed answering of the questionnaire and the voluminous notes submitted by the visiting investigators, a rating was made. At present 77 schools are recognized as acceptable. For the first time, a graph was made for each school showing the standing of its organization, its financial structure, and the rating of each department in relation to the best and poorest found in the 77 schools investigated. The range from best to poorest was divided in 10 divisions. This permitted rating to be described as in the first, intermediate, or lower tenths, the tenth tenth being the lowest grade still consistent with acceptance. This graph was prepared and sent to each dean. Since it was an analysis showing the

weak spots in the school as well as elements of strength, a confidential nature was given to it. The Committee was given opportunity to see and study this graph, but does not have permission to show it. However, comments may properly be made based upon some of the information revealed.

The graph was designed to show the relative rating of each department in comparison with those of the other 76 schools, the upper tenth representing the best found in any school. It did not represent perfection.

The graph was divided into 16 different headings as follows: Organization and administration of the school as a unit; library; the faculty was divided into pre-clinical and clinical; educational facilities, meaning the buildings and equipment; financial support. Then the preclinical and clinical teaching was divided into their respective subjects or departments, as: anatomy, biochemistry, physiology, pharmacology, bacteriology, pathology, medicine, surgery, obstetrics and pediatrics. In the Indiana Medical School in but seven of these general rating heads did the best features of these departments equal or exceed the average for all schools inspected by the Council. These departments were clinical facilities, educational facilities, library, medicine, surgery, obstetrics, and pediatrics. Faculty personnel and research and scientific interest were among those points receiving the lower ratings. In those departments receiving low ratings, two found themselves in the lowest tenth—one on account of educational program and the other on account of faculty personnel and research and scientific program. Analysis of the graph would seem to show that improvement in the rating of our school must be looked for in (a) faculty personnel and (b) financial support.

As this graph was made from data given for the school year 1934-35 at a time when the depression had compelled sharp budget reductions, Dean Gatch and Dean Myers were asked to outline the measures taken since to meet the reasonable criticisms of the Council.

In a letter of September 23, 1938, Dean Gatch reported for the Indianapolis Division of the School. After calling attention to the time and method of investigation, special reference was made to the graph. It was pointed out that the Department of Pathology had been strengthened by (1) the return from sick leave of Dr. Frank Forry, who heads the Division of Pathology; (2) Department of Clinical Pathology, headed by Dr. Clyde Culbertson. These two departments have six full-time teachers. (3) Department of Bacteriology and Public Health, Dr. Thurman Rice, with one full-time teacher and several assistants. Department of Public Health will be greatly expanded in the near future.

In the Department of Bio-Chemistry and Pharmacology, Dr. K. K. Chen has been added this past year as a part-time member of the staff. Attention was also called to other outstanding teachers long associated with this department. The low cost of medical education as compared with many other schools was pointed out as a real advantage to deserving students compelled to finance their own education. This low cost is due in part to the policy of utilizing part-time teachers in active practice. This the Dean feels has been very satisfactory. However, the employment of full-time teachers is recognized as advantageous under certain circumstances.

A letter from Dean Myers covering the Bloomington Division of the School covered the discussions very completely. The points especially of interest to this discussion are abstracted as follows:

The new medical building recently erected on the campus at Bloomington was praised for its undoubted superior features for teaching anatomy and physiology.

Additions to the faculty embraced for Physiology, V. Brown Scott, M.D., Ph.D., Chicago, and Dr. Sid Robinson. In Microscopic Anatomy, Dr. Russell Jones, Ph.D., Minnesota, and Gross Anatomy, Robert T. Hill, Ph.D.,

Iowa, have been recent additions to the pre-clinical staff.

The Committee feels that it is quite evident that marked improvement has been made in the teaching personnel and that much of the earlier criticism has been met. The administrative policy in replacing and filling vacancies has much to do with the level of faculty talent when reviewed over a period of time. Equal or better talent must be found if improved standing is the goal.

Comment:

Medical faculties reach a position of excellence for many reasons, but a policy of weeding out the less efficient while giving encouragement to those showing unusual teaching skill by rewarding them with greater opportunities, would produce many desirable improvements. The committee would recommend that this suggestion be placed before the Dean of the Medical School for his consideration.

Financial support being one of the points receiving the lowest grade, it seemed instructive to compare the support given by the tax payers of Indiana to our school with that in neighboring states. The Council on Medical Education and Hospitals, quoting from the information supplied by the schools themselves, submitted the following:

<i>School</i>	<i>Appropriation</i>	<i>Clinical Salaries</i>	<i>Year Reported</i>
Illinois -----	459,639	197,457	1935-36
Indiana -----	60,000	37,872	1934-35
Michigan -----	398,779	161,579	1935-36
Minnesota ----	171,810*	198,441	1935-36
Ohio -----	187,372	84,660	1934-35
Wisconsin ----	279,349	144,241	1935-36

*171,810 merely shows the amount specifically appropriated for definite and limited undertakings.

That the relative position has improved is evidenced by a letter from J. B. H. Martin, Administrator for the Medical Center. The figures quoted by him show improvement but still they are far below the depression figures for neighboring schools.

In a letter of transmittal, Dean Gatch expressed the conviction that, "If it be objected that medical education is so expensive to the taxpayers, my reply is that it is also very expensive to the medical student, and that unless this expense to the student is kept as low as possible, it will be impossible for any but wealthy boys to take up the study of medicine. It is for this reason that we have kept our fee low—\$205 per year for the Indiana students; \$410 per year for students from other states.

"While the possession of hospitals having an ample number of patients is essential to any first-class medical school, the cost of maintaining these hospitals should not be included in the cost of medical education because the patients in the hospital are charity patients who have to be cared for anyway by public funds."

Supporting this thought, J. B. H. Martin, Administrator for the Medical Center, wrote in part as follows:

"Out of the total budget (\$430,000) for the Medical Center, \$178,037.14 is assigned to the Medical School. There is an intimate blending in the services of the various units which compose the Medical Center. The foregoing figure is, I think, a very accurate estimate. Of this total, \$57,449.95 is expended for teachers' salaries and \$41,866.34 for lay salaries (janitors, librarians, stenographers, laboratory assistants, etc.) The remainder of the \$178,037.14 is expended for materials, supplies, repairs, heat, light, power, and all other general expenses incident to operating the school.

"When this total cost is divided by the number of students, we get an annual cost per student of \$590.57. Of this cost 46.8% comes from tax money and 53.2% from student fees, supplemented from a small amount of miscellaneous receipts, chiefly from funds of the Research Committee."

A communication from President Wells reflects the attitude of the Board of Trustees of Indiana University toward the financial problems of the Medical School:

"There are no difficulties in the medical school which might not be easily and quickly solved if sufficient funds were available. I think it is fair to state that the Trustees of Indiana University are at present allocating for medical education all that is possible. During the past year \$430,000, out of a total state appropriation of \$1,890,000, or a percentage of 22.75, was allocated to the operation of the medical school in Indianapolis alone. The enrollment of the medical school at Indianapolis, including the nurses' training school, is this year 498, compared with a total University enrollment of 7,085, or a percentage of 7.02. An additional \$58,994.14 was appropriated for the work on the Bloomington campus, making a total of \$488,994.14 for medical education, or 26 per cent of the University's appropriation from the state.

"The figures above do not include any allocation to the school of medicine for its proper pro-rata share of the general overhead administrative expenses of the University. If such an allocation were to be made, the ratios would be even more startling. Correspondence, and reports from the comptrollers and finance officers of five neighboring state institutions show that they expend on medical education percentages of their total state appropriations as follows:

Ohio State University-----	8.2%
Michigan, University of-----	9.7
Illinois, University of-----	8.0
Wisconsin, University of-----	7.0
Minnesota, University of-----	5.0

"Surely, fairness to the remainder of the departments of the University would not allow us to go further than we have already gone in support of medical education. Under these circumstances, therefore, the only possible additional financial support for our medical school will have to come through an increase in total University appropriations."

The Committee makes the following comment that statistics and percentages seem more or less unreliable for comparative purposes since no two schools use the same factors in computation. For instance, Illinois, Wisconsin, and Minnesota have each one University combining the facilities of both Indiana University and Purdue. In arriving at a comparable medical cost percentage of total appropriation, the total for Indiana University and Purdue University must be used. Again President Wells has used a figure, \$430,000, representing the appropriation for the Medical Center, instead of the figure, \$178,000, properly chargeable to medical education as submitted by Administrator Martin. If one used \$178,000 for medical education compared with \$3,780,000, the total appropriation for the two state universities, the comparison with Illinois, Wisconsin, and Minnesota would be more nearly correct.

Comment on the financial support of the Medical School.

It seems evident from the figures presented that our medical school is required to operate on a budget much less than those of neighboring states. This applies to the allotment for each department as well as clinical salaries covering the departments.

We have a small clinical salary expense because the policy has been one of running the school largely under the direction of busy men who earn their living through other activities. Comment upon the value of such policy by educators outside our state has been quoted earlier in this report and others are on file. The Committee recognizes that many weighty arguments can be adduced for and against either the full-time or the part-time policy in employing the teaching staff. It is probably best answered at each school by adopting the measure best suited to their needs. The Committee finds itself in agreement with the statement of Dean Gatch that "The expense of paying all clinical instructors is absolutely prohibitive." If the expense could be

met, the difficulty in finding able clinical teachers for full-time positions is recognized as perhaps one of the strongest arguments against it.

In the opinion of the Committee, the consensus of opinion elicited from well informed sources points to the advantages to be gained from employment of a whole-time dean. Such a man should have a background of educational and administrative experience, and need not be a physician in active practice. Also it would seem desirable for a full-time professor to be at the head of the department of medicine since the primary function of a medical school is the preparation for the general practice of medicine. The lower grades in the teaching staff should utilize men in active practice of unusual ability. The Committee would recommend that this suggestion be called to the attention of the Trustees of Indiana University together with the suggestion that financial support be found to finance this improvement.

Question Number 4 deals with the divided school and how the rating is affected by this fact.

The Committee finds that this question is involved and must be considered, (a) historically, (b) legally, and (c) educationally.

(a) Dean Myers in a letter covering some of the historic aspects recalled that following amalgamation of the then existing schools to form the medical department of Indiana University, duplication of the first and second years at Bloomington was carried on with the consent of the medical faculty at Indianapolis. Duplication proved expensive and a hardship financially to the third and fourth clinical years. The medical faculty agreed after a short trial to "emphasize the work of the first year at Bloomington only, and of the second year at Indianapolis only." However, since the law creating the medical department was mandatory in requiring that four years' instruction be given or offered in Marion County, the catalogue continued to offer the freshman instruction but at a prohibitive tuition. The effect of this change in policy "was that in the year 1912-13 all freshmen students took their work at Bloomington." In the catalogue for 1933 the offer of freshman instruction at Indianapolis was deleted.

The Committee believed the historic data could be enriched by interviewing someone who had taken part in the negotiations leading up to the final amalgamation of the medical schools. Four individuals were sought, three contacted, and one favored us with a review.

Dr. William N. Wishard took a leading part in negotiations, covering several years of effort, to establish University connection for the medical school. Dr. Wishard submitted a very clear and comprehensive statement, which was read in full to the House of Delegates, but must be abstracted here.

After reviewing the union of the Medical College of Indiana, the Central College of Physicians and Surgeons, and the Fort Wayne Medical College, as a medical department of Purdue University, he recalled that efforts to combine with Indiana University had failed owing to difference of opinion as to the best place to locate the school. The responsible officers of the medical school always insisted that any University affiliation must be conditioned upon maintenance of the full four years' instruction at Indianapolis. Legislative support and authority was denied to either Purdue or Indiana University unless a combined medical school could be agreed upon. Quoting directly from Dr. Wishard:

"The Indiana University had held the first two years at Bloomington and the last two years at Indianapolis in a school it had organized and which was known as the State Medical School. At no time had the medical profession or the Purdue Medical School expressed objection to Indiana University giving a year or two at Bloomington if they so desired, especially for the benefit of students who were not going to enter the medical profession but desired an opportunity to study anatomy, physiology and chemistry. However, it was recognized

by the medical faculty that a complete four-year course at Indianapolis afforded the best foundation for a medical education."

"The first session, that of 1908-9, was conducted by Indiana University at Indianapolis under the four-year plan. At the close of the first year the University decided to conduct the first year at Bloomington and the remaining three years at Indianapolis. I was officially informed that this would be but temporary and at the end of three or four years the complete course would be resumed at Indianapolis according to agreement. It was explained that the question of finances was so urgent that it was temporarily desired to conduct the first year at Bloomington."

Dr. Wishard referred to a statement signed by President Bryan of Indiana University and President Stone of Purdue and published in the *INDIANA MEDICAL JOURNAL* in May, 1908. This statement follows in full, since it sought to prevent the division of the four years instruction in Medicine:

Statement of Presidents Stone and Bryan

(Indiana Medical Journal May, 1908)

The statement of the presidents is as follows:

The efforts of Indiana University and of Purdue University to promote medical education in the State, through cooperation with the members of the profession and with existing proprietary medical schools have been undertaken in good faith and with the one aim of establishing this important branch of professional training upon a sound educational basis.

Indiana University has sought for many years to establish and develop such a department, in which efforts it has encountered many obstacles, but has made continuous progress. Purdue University entered the field only when convinced that a service could be rendered to the profession and to the State by the tender of its offices in consolidating existing forces and aiding in the evolution of a single, strong medical school at Indianapolis under the auspices of the State and with the cooperation of other educational interests, a task which was undertaken only after it seemed that other efforts in this direction had failed.

Out of these efforts by the two institutions had grown an unfortunate controversy, which operated to confuse the situation and becloud in the minds of the public the true relations of the universities. In the belief that the present conditions are delaying the educational progress and interfering with the highest functions of the two universities, the logical conclusion follows that the two medical schools now in operation in Indianapolis under the direction of the two universities should be united into one school, and that this should be under the exclusive control of one or the other of these institutions.

Since Purdue University had at no time regarded a department of medicine as an essential part of its program and on the other hand Indiana University believes that it has been especially charged with the responsibility for such instruction, the latter institution has been selected to proceed in the matter and the trustees of the two universities have this day mutually agreed to the following conditions, to which the faculties of their respective medical schools assent, namely: to a union of the two medical schools under the direction of Indiana University; to a selection of the faculty of the new school with due regard to the members of the present faculties, and to the maintenance of a complete medical course in Indianapolis* as well as to the two-year course in medicine at Bloomington.

Only in this way does it seem feasible to accomplish the ultimate purpose of developing for the State a sound system of medical education, which has been the aim of both parties in their efforts in the field; as well as to promote those harmonious and friendly relations so essential to the proper discharge of the functions of both institutions.

It is hoped, therefore, that the citizens of the State, whether remotely or intimately interested in this question, will accept the above decision as evidence of the disinterested motives of these institutions, and their desire to serve the State with undiminished energies.

W. L. Bryan,
President Indiana University
W. E. Stone,
President Purdue University.

April 4, 1908

After reading the statement signed by President Bryan of Indiana University and President Stone of Purdue University, presented in full in this report, together with reference to Dr. Wishard's letter dealing with the negotiations leading to amalgamation, as well as several articles appearing in the May, 1908, number of the *INDIANA MEDICAL JOURNAL*, one being by the late Theodore Potter, Professor of Clinical Medicine in the Indiana Medical College, another being an editorial copied from the *Indianapolis News*, it is significant that all mention the merger as making possible the full course of medical instruction in Indianapolis.

There would seem to be no question of the agreement and the intent to conduct a full four year course of medical teaching at Indianapolis on the part of all those whose signatures sealed the final amalgamation of the several schools into the Department of Medicine of Indiana University. It is equally evident that this policy was followed but for a brief period when the first or freshman year was dropped at Indianapolis on the plea of excessive costs but continued at Bloomington. It has never been restored at Indianapolis. The plea of excessive costs in maintaining the freshman year at Indianapolis is due to the duplication of the year at Bloomington. There seems to be no reason to believe these costs would be excessive in either place if duplication is avoided. If there is some reason, not apparent to the Committee, making the first year at Bloomington mandatory in character, more compelling than the agreements cited above and in the special act of legislation to be read whose evident intent and wording seem so clear, then the maintenance of the present arrangement might be justified.

Question Number 4 Part (B) The legal portion of this question requires reprinting the law as given in Burns Indiana Statutes, 1933, 28-5403 (7149). School of Medicine in Marion County.—The Trustees of Indiana University are hereby authorized to conduct a medical school in Marion County, Indiana, and to receive gifts of real estate and other property on behalf of the State of Indiana for the maintenance of medical education in said county, conditioned that said trustees *shall conduct* as an integral part of the Indiana University School of Medicine a full four (4) years' course in medicine in said Marion County, Indiana: Provided, That there shall be no discrimination for or against any school or system of medicine in the university, and that all or each of the schools or systems of medicine now recognized by the state shall have adequate opportunity to teach the practice of medicine in the university according to principles advocated by them respectively, and it shall be the duty of the trustees of Indiana University to provide such instruction in as thorough a manner as the means at their disposal will permit, and as nearly as possible to provide the same quality of instruction whenever a reasonable demand shall be made for the same: Provided, further, That premedical or other collegiate work done in any college or university of Indiana, which is recognized by the state board of education of Indiana as a standard college or university, shall be conditioned as work of the same kind, grade and amount done in the department of liberal arts of Indiana University. (Acts 1909 ch. 40, Paragraph 1, p. 99.)

Title of Act. The title of Acts 1909, ch. 40, reads: "An act authorizing the Trustees of Indiana University to conduct a medical school in Marion County, Indiana; to receive gifts of real estate and other property on be-

* Italics ours—not in original copy. Editor.

half of the State of Indiana, for the maintenance of medical education in said County, and declaring an emergency." (In force March 2, 1909.)

Emergency. Section 2 of Acts 1909, ch. 40 declared an emergency. (From Burns Indiana Statutes Annotated 1933.)

The wording of the law was called to the attention of the Board of Trustees of Indiana University. President Wells, acting for the Board, forwarded an opinion signed by their attorney, Edwin Corr, bearing upon the failure to maintain the full four years at Indianapolis in contravention to the evident intent of the law. After quoting the act, Mr. Corr points to the record of freshman enrollment at Indianapolis which had dropped to six in 1910-11 and four in 1911-12, adding that since that time not more than a dozen inquiries had been made concerning the freshman year at Indianapolis. In his opinion—"It thus appears from the record, that there has not been a reasonable demand as defined in the Act for a continuation of the freshman year of the School of Medicine at Indianapolis for over twenty-five years.

"I think the facts presented to me show compliance by the Trustees of Indiana University with the provisions of Chapter 40 of the Acts of 1909 General Assembly of Indiana, and that these facts fully justify the failure to provide a full four years' course of medicine at Indianapolis by reason of the fact there has not been a reasonable demand for the same."

Comment on (b):

The Committee suggests that the evident requirements of the law and the agreements made incident to and a part of the amalgamation of the medical school to form the Medical Department of Indiana University be called to the attention of the Board of Trustees of Indiana University.

It is the opinion of the Committee that: (1) The place of enrollment of students for the first medical year is influenced largely by the desires of those in authority in the University. It is conceivable that freshmen students will enroll at either place designated. (2) The best interests of Medical Education would be served by conducting the full four years at the Medical Center in Indianapolis and that the freshman medical year at Bloomington be dropped in the interests of economy.

Part (C) Educationally.

Comment. In our interview with the Secretary of the A.M.A. Council on Medical Education and Hospitals we learned that the rating of our school as a whole was adversely affected by failure to have the full four years in medicine on one campus.

In response to a letter covering this as well as a number of other questions addressed to six outstanding educators in the East and Middle West, four expressed themselves unqualifiedly on the advantages accruing to the student where all four years of medical instruction was given on one campus.

A letter submitted by Dean Gatch, addressed to him by Dr. Cutter, advising him that "the Class A rating of Indiana University has never been in question" added "The most serious handicap under which the school operates is the separation of the first year from the real Center of the Medical School at Indianapolis."

The Committee finds that the division of the four teaching years—freshman at Bloomington and other three at Indianapolis—operates to give our school a lower rating among medical institutions of learning than would obtain if the complete four years were given on the one campus at the real medical center in Indianapolis.

Signed: F. S. Crockett, Chairman
W. R. Davidson
Paul S. Johnson
David A. Bickel.

Committee on Inter-Allied Professional Conference

DR. F. T. ROMBERGER: The committee wishes to file a supplemental report consisting of a constitution that was adopted by the various groups of this conference.

Referred to Reference Committee on Miscellaneous Business.

Special Committee to Study the National Medical Situation

(Each member of the House of Delegates was supplied with a copy of this report. As it was not published in the handbook, it is printed here.)

RECOMMENDATIONS OF THE SPECIAL COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION TO STUDY THE NATIONAL MEDICAL SITUATION

Public Demands Action

During recent months much discussion has occurred concerning the distribution of medical care and the part government should play in this field. The National Health Conference held in Washington recently and the resulting publicity has given a sudden impetus to this discussion throughout the nation. Adverse criticism of the medical profession by many of the representatives at that conference and by leading periodicals throughout the United States since then, and the suit threatened against the American Medical Association by the attorney general of the United States, present to the medical profession a most serious challenge.

Your subcommittee has studied carefully the many and varied aspects of this problem and after careful consideration recommends that the Indiana State Medical Association approve the following program of action:

(1) **Maintain Patient-Physician Relationship.** That we continue by every means at our command to resist vigorously changes in the practice of medicine which we believe detrimental to the public welfare and to the progress of good medical care, namely, the right of the patient to choose his own physician, and the traditional confidential physician-patient relationship. We oppose any attempt to influence the choice of the physician on a political basis. We assume a progressive attitude, realizing that progressive social change necessitates corresponding changes in medical practice, and we set ourselves to the task of directing the solution of new problems in medical care. We insist that the medical profession by experience and training is best prepared to solve this situation.

(2) **Publicity by A. M. A.** To this end the State Association is urged to appeal to the American Medical Association immediately to adopt a program, national in scope, and dignified in character, to refute the erroneous claims and statistics which are flooding the national press in favor of governmental control of medicine. This matter is of urgent importance. We furthermore urge the American Medical Association to establish an educational department to inform the public through the press and radio with enlightening facts and figures concerning the fine character of the medical service that the American public is receiving under the present system and the fallacies of any panaceas.

(3) **Speakers to Tour State.** It is suggested that our State Society take active measures to awaken further the appreciation of the problems confronting this committee. Pamphlets and other printed matter have evidently not fully served this purpose. The suggestion is proposed that the state organization sponsor a group of speakers who are qualified to present the whole problem fairly to address special called meetings so as to reach every member of the society in the state.

(4) **Put Indiana Plan Into Action.** That the State Association and its various component units translate the Indiana Plan of preventive medicine into practical action throughout the state, that they analyze it carefully and modify it when needed, but that they cooperate to the fullest extent with public officials, health and otherwise,

in a vigorous effort to eliminate preventable illnesses. We believe the medical profession should be the leader in this field and should not allow the responsibility for such leadership to rest in the hands of lay committees or groups.

(5) **Services for Indigent and Low Income Groups.** Since most discussions and criticisms are to the effect that medical care is inadequate for the indigent and low income groups and is too expensive for the latter, we believe these problems must be approached for solution by the medical profession in cooperation with various interested groups. We reiterate the traditional policy that the medical profession is ever ready in the future as in the past to administer to those who are in need of medical attention on a basis of that patient's ability to pay and will try to solve these problems with that always in mind.

a. **Urge Full-Time County Secretaries.** We believe that each community has a different problem with an individual solution for each; therefore, we urge that each county medical society carefully study its own problem. For that purpose we urge each county medical society, particularly the large ones, to employ a full-time secretary and to become a more compact economic unit. It is suggested that some small societies join with larger ones to effect such units.

b. **Work Out Problem Locally.** We suggest that this unit then work out a solution of adequate care of the indigent with the public officials entrusted with the payment for that service on a basis that is reasonable and feasible for that community.

c. **Establish Medical Service Bureaus.** We suggest that this unit then establish a plan whereby the low income group may receive adequate medical care at a cost that is within their economic sphere. We believe that a medical bureau operated and directed by this unit may be of great service. This bureau should have sufficient personnel and delegated authority to decide what that patient is able to pay for medical and surgical services for a major illness, and should work out a plan for payment of the same.

d. **Create Appeal Boards.** We believe also that each unit should develop an appeal board or committee to which the public may appeal when they feel that medical or surgical bills are too high for services rendered by a member of the medical society without previous agreement as to the cost. The public deserves some measure of protection without court action from a small percent of unscrupulous physicians.

e. **Inaugurate Hospital Insurance Plans.** We believe furthermore that since there is a great demand by the public for hospital insurance and since this is often a considerable item in the so-called medical expense of a major illness, that hospital insurance plans may be successfully inaugurated if these local units carefully work out the details with their local hospitals, and carefully eliminate any form of medical care from this arrangement, and keep control within the medical profession.

(6) **Permanent Group Ready to Act.** We recommend the creation of a permanent study committee whose duty it will be to keep in constant touch with the situation both locally and nationally in regard to the programs that are developed in this or in other states. This committee should at all times be prepared to render to component societies or to agencies of the state government information on the subject of medical economic problems. This committee should have at all times available a possible medical economic program suitable for adoption in the State of Indiana which is not inconsistent with the policies of the American Medical Association.

(7) **Adequate Medical Care for All.** We believe that in Indiana there is sufficient medical service available, so that if it is properly utilized and properly distributed,

the people of Indiana may have efficient and adequate medical care at a cost that the public of Indiana is able to pay.

Referred to Reference Committee on Public Policy and Legislation.

Committee on Scientific Exhibit

Referred to Reference Committee on Sections and Section Work.

Report of Delegates to the A. M. A.

Referred to Reference Committee on Reports of Officers.

NEW BUSINESS

DR. WALTER M. STOUT presented the following resolution:

"The Indiana State Medical Association requests the Commanding General, Fifth Corps Area, to assign a medical instructor to the Indiana Military Area Headquarters.

"There are in excess of 500 medical officers in the Indiana Reserve whose instruction can be handled very much better from the Indianapolis Headquarters. It is our understanding that it is the policy of the War Department to assign an instructor for 500 or more Reserve officers and it has heretofore been the custom to keep a medical officer on duty at Indianapolis. It is our understanding that the training of medical Reserve officers has been held at a very high standard through the personal contacts and efforts of Colonel Von Kessler and his predecessors and it is our urgent recommendation that these standards be maintained by the continued assignment of a suitable instructor so that in event of emergency, our Indiana medical Reserve shall be ready to function with the efficiency and preparedness we expect of them."

(Referred to Reference Committee on Medical Education and Hospitals.)

DR. C. V. ROZELLE introduced the following resolution:

"WHEREAS, The American Medical Association has endorsed the movement known as the Woman's Auxiliary to the medical societies of the several states, thus recognizing the great value of this adjunct to the state medical organizations; and

"WHEREAS, The wives of the practicing physicians are well qualified to influence the promotion of health programs, to secure approved speakers for such events, to arrange radio talks and to approve the preparation of press notices; and

"WHEREAS, Informed of the problem of socialized medicine, they can, through membership in clubs and civic organizations, refute the arguments of lay women in such matters, be alert to and combat adverse propaganda, influence passing of legislation in the interest of the public health and organized medicine as demonstrated in the successful opposition to the activities of irregular cultists; and

"WHEREAS, They have done much to increase the circulation of *Hygeia* and other publications of the American Medical Association; and

"WHEREAS, They have been instrumental in effecting closer cooperation between various medical groups; and

"WHEREAS, They have in all instances operated under the supervision and guidance of the state medical societies and are contributing materially to the work of such societies; and

"WHEREAS, Indiana, with more than 3,000 members of the state medical society, has only 421 members of the Woman's Auxiliary and is, therefore, inadequately organized as compared more particularly with Pennsylvania, Michigan, Texas, West Virginia and others, due to the fact that the Auxiliary to the Indiana State Medical Association has never been officially recognized by that body and, therefore, has not the privilege of an accredited branch of the Indiana State Medical Association, but must wait for a request to enter any particular county for the purpose of organizing an active unit; therefore,

"RESOLVED, That the organization known as the Woman's Auxiliary to the Indiana State Medical Association hereby petitions the House of Delegates of the Indiana State Medical Association for official recognition and that the Woman's Auxiliary be privileged to approach the county medical societies for the purpose of establishing active units therein."

(Referred to Reference Committee on Amendments to the Constitution and By-Laws.)

DR. M. R. LOHMAN: I would like to present this resolution:

"Be it resolved that the Indiana Medical Association approve a bill for the control of the sale of

barbiturates, etc., and through its legislative and public health committee urge its passage in the next session of the Legislature, the bill to read like or similar to the following:

Sale and Disposal Prohibited

"It shall be unlawful for any person, firm, or corporation to sell, furnish, or give away, or offer to sell, furnish, or give away veronal, barbital (acid diethylbarbituric) or any of its salts, derivatives, or compounds of the foregoing substance, or its salts, derivatives or compounds, or any registered, trademarked or copyrighted preparation or compound registered in the United States patent office, except upon the written order or prescription of a physician and surgeon, dentist or veterinary surgeon duly licensed to practise in the State of Indiana, and shall not be refilled without the written order of the prescriber, provided, however, that the above provision shall not apply to the sale at wholesale by drug jobbers, drug wholesalers and manufacturers to pharmacies as defined in an act to regulate the practise of pharmacy in the State of Indiana, or to physicians, dentists, or veterinary surgeons, or to each other, or to the sale at retail in pharmacies by pharmacists to each other or to physicians and surgeons, dentists or veterinary surgeons duly licensed to practice in this state.

Enforcement Exemptions

"Every person who violates any of the provisions of this section is guilty of a misdemeanor, and punishable by a fine not exceeding two hundred dollars or by imprisonment in the county jail, not exceeding six months, or by both such fine and imprisonment.

"The State Board of Pharmacy is hereby charged with the enforcement of the provisions of this section of the Code, and all fines, moneys or forfeited bail imposed for the violation of that section upon collection shall be disposed of as is provided for the disposition of fines, moneys or forfeited bail in this act."

(Referred to Reference Committee on Hygiene and Public Health.)

DR. A. S. GORDANO: I have the following resolutions to present requesting that the Indiana State Medical Association define the status of clinical, pathologic, and radiologic laboratories, whether private or as departments in hospitals:

"WHEREAS, The American Medical Association has through its House of Delegates and its various bureaus and councils from time to time propounded certain principles of ethics and established standards of relationships looking toward the maintenance of the highest quality of professional service both in private practice and in hospitals; and

"WHEREAS, Many of these pronouncements refer specifically to those special branches of medicine involving somewhat unusual relationship between hospitals, institutions and the physician practicing these specialties in the hospital; and

"WHEREAS, Certain usages have sprung up which are tending to involve ethical and legal consideration; and

"WHEREAS, It would appear to be highly desirable and in the best interests of good medical practice and sound public policy to have certain of the aforementioned pronouncements clarified, codified and in some instances reiterated; and

"WHEREAS, At the last meeting of the American Medical Association at San Francisco in June 1938, a resolution requesting the Council on Medical Education and Hospitals to study the status of clinical and pathologic laboratories, and radiologic departments in hospitals and institutions with a view toward standardizing the relationship of these services to these institutions and when necessary reaffirming principles of ethics involved in these relationships; and

"WHEREAS, The practice of medicine combines the exercise of professional knowledge and judgment and technical skill; and

"WHEREAS, Hospitals and other lay organizations associated with physicians in the care of the sick find it essential to have available competent departments of roentgenology and clinical pathology; and

"WHEREAS, Physicians especially trained in the selection, use and interpretation of diagnostic aids in clinical pathology and roentgenology are a recognized necessity in medical practice; and

"WHEREAS, The technical skill required in the practice of roentgenology and clinical pathology needs to be supplemented by the professional knowledge and judgment of a physician before it is used in the diagnosis and treatment of disease; therefore:

"BE IT RESOLVED, That the Indiana State Medical Association reaffirm the action of the House of

Delegates of the American Medical Association, 'that the practice of clinical pathology and roentgenology is the practice of medicine,' and recommends that clinical and roentgenological laboratory services be excluded from service contracts which exclude other professional services; and

"WHEREAS, Our duty to the sick and afflicted is to furnish the best service possible; therefore:

"BE IT FURTHER RESOLVED, That all laboratories practicing these specialties should be recognized as being ethical only when they are operated and supervised by a physician trained and recognized as being competent in these specialties in medicine, and

"BE IT FURTHER RESOLVED, That laboratories, which indulge in unfair competition by wholesale advertising of cut-rate prices, be specifically classed as unethical and unworthy of support by ethical members of the profession.

(Signed) Alfred S. Giordano, President,
Indiana Association of Pathologists."

(Signed) Stanley A. Clark, President,
Indiana Roentgen Ray Society."

(Referred to Reference Committee on Medical Education and Hospitals.)

As there was no further new business, upon the usual motion, duly seconded, the first meeting of the House of Delegates adjourned to Thursday morning, October 6, 1938, at seven o'clock.

HOUSE OF DELEGATES

(INDIANAPOLIS SESSION, 1938)

Second Meeting

The second meeting of the House of Delegates, a breakfast meeting, was held in the Green Room of the Indianapolis Athletic Club, Indianapolis, on Thursday, October 6, 1938, with the president, Dr. Herman M. Baker, in the chair. The meeting was called to order at 7:45 a. m.

On motion of Dr. G. R. Daniels, seconded by Dr. E. E. Padgett, and carried, roll call was dispensed with and the signed attendance slips showing the following present were accepted as the roll call:

County	Delegates
Adams	C. P. Hinchman, Geneva
Allen	Maurice R. Lohman, Fort Wayne
	C. B. Parker, Fort Wayne
	William C. Wright, Fort Wayne
Bartholomew	H. J. Norton, Columbus
Boone	Charles O. Weddle, Lebanon
Carroll	George W. Wagoner, Burrows
Cass	B. W. Egan, Logansport
Clay	John C. Shattuck, Brazil
Clinton	Melville F. Boulden, Frankfort
Daviess-Martin	S. L. McPherson, Washington
Dearborn-Ohio	Edwin L. Libbert, Lawrenceburg
Decatur	I. M. Sanders, Greensburg
DeKalb	M. E. Klingler, Garrett
Delaware-Blackford	Charles L. Botkin, Muncie
Dubois	H. C. Knapp, Huntingburg
Elkhart	A. C. Yoder, Goshen
Fayette-Franklin	Henry C. Metcalf, Connersville
Floyd	P. H. Schoen, New Albany
Fountain-Warren	Simeon Lambright, Covington
Fulton	A. E. Stinson, Rochester
Gibson	O. T. Brazelton, Princeton
Grant	Russell W. Lavengood, Marion
Hamilton	C. M. Donahue, Carmel
Hancock	J. E. Ferrell, Fortville
Harrison	William E. Amy, Corydon
Hendricks	O. T. Scamahorn, Pittsboro
Henry	W. U. Kennedy, Newcastle
Huntington	G. M. Nie., Huntington
Jackson	H. P. Graessle, Seymour
Jay	John Lansford, Red Key
Jefferson	Nicholas A. Kremer, Madison
Johnson	William E. Sutton, Edinburgh
Kosciusko	E. Winton Thomas, Warsaw

<i>County</i>	<i>Delegates</i>
Lake	Clifford M. Jones, Whiting W. H. Howard, Hammond T. W. Oberlin, Hammond James M. White, Gary
LaPorte	Jon N. Kelly, LaPorte
Madison	D. S. Quickel, Anderson C. V. Rozelle, Anderson
Marion	E. O. Asher, New Augusta James F. Balch, Indianapolis Raymond C. Beeler, Indianapolis Frank M. Gastineau, Indianapolis Ralph L. Lochry, Indianapolis C. H. McCaskey, Indianapolis W. P. Morton, Indianapolis Lacey L. Shuler, Indianapolis O. W. Sicks, Indianapolis M. J. Spencer, Indianapolis James B. Stalker, Indianapolis Chas. F. Thompson, Indianapolis A. A. Thompson, Tyner A. S. Newell, Converse Hugh S. Ramsey, Bloomington T. Z. Ball, Crawfordsville Leon Gray, Martinsville H. A. Williams, Kendallville George Dillinger, French Lick Robert H. Pierson, Spencer S. C. Darroch, Cayuga T. R. Rice, Petersburg J. R. Ranes, Mount Vernon George S. Row, Osgood Robert D. Spindler, Milroy Erwin Blackburn, South Bend Alfred S. Giordano, South Bend M. D. Wygant, Mishawaka Floyd S. Napper, Scottsburg Bayard G. Keeney, Shelbyville J. T. Oliphant, Farmersburg Gordon A. Thomas, Lafayette Earl VanRood, Lafayette Robert R. Acre, Evansville Minor Miller, Evansville P. E. Yunker, Evansville R. G. Harkness, Terre Haute O. R. Spigler, Terre Haute A. J. Steffen, Wabash Donald L. Colglazier, Salem W. A. Thompson, Liberty A. C. Nickel, Bluffton Paul A. Garber, South Whitley
Marshall	
Miami	
Monroe	
Montgomery	
Morgan	
Noble	
Orange	
Owen	
Parke-Vermillion	
Pike	
Posey	
Ripley	
Rush	
St. Joseph	
Scott	
Shelby	
Sullivan	
Tippecanoe	
Vanderburgh	
Vigo	
Wabash	
Washington	
Wayne-Union	
Wells	
Whitley	

Councilors

- 1st district—I. C. Barclay, Evansville
 2nd district—H. C. Wadsworth, Washington
 3rd district—William H. Garner, New Albany
 4th district—Maurice C. McKain, Columbus
 5th district—O. O. Alexander, Terre Haute
 6th district—Samuel Kennedy, Shelbyville
 7th district—C. J. Clark, Indianapolis
 8th district—M. A. Austin, Anderson
 9th district—Floyd T. Romberger, Lafayette
 10th district—N. K. Forster, Hammond
 11th district—Ira E. Perry, North Manchester
 12th district—A. Jerome Sparks, Fort Wayne
 13th district—W. B. Christophel, Mishawaka

Past Presidents

- William R. Davidson, Evansville
 E. M. Shanklin, Hammond
 Charles N. Combs, Terre Haute
 F. W. Cregor, Indianapolis
 G. R. Daniels, Marion
 C. E. Gillespie, Seymour
 A. B. Graham, Indianapolis
 F. S. Crockett, Lafayette
 J. H. Weinstein, Terre Haute

- E. E. Padgett, Indianapolis
 R. L. Sensenich, South Bend

Officers

- Herman M. Baker, Evansville, president
 E. M. VanBuskirk, Fort Wayne, president-elect
 A. F. Weyerbacher, Indianapolis, treasurer
 T. A. Hendricks, Executive secretary
 N. M. Beatty, Indianapolis, alternate delegate to the A. M. A.

Dr. W. E. Amy, acting chairman of the Committee on Credentials, reported 108 voting members present.

THE CHAIRMAN: One hundred and eight members constitute a quorum and the House is now declared open and ready for business. The first item of business is the election of officers. The chair will entertain nominations for the office of president-elect.

ELECTION OF OFFICERS**President-elect:**

Dr. F. S. Crockett nominated Dr. Paul S. Johnson of Richmond. Nomination seconded by Dr. J. E. Ferrell and Dr. F. W. Cregor.

Dr. E. O. Asher nominated Dr. Karl R. Ruddell of Indianapolis. Nomination seconded by Dr. C. H. McCaskey.

Dr. O. R. Spigler moved that the nominations be closed. Motion seconded by Dr. Jon Kelly, and carried.

The chairman appointed Dr. A. E. Stinson, Dr. George S. Row and Dr. P. E. Yunker, tellers.

On balloting, Dr. Karl R. Ruddell was elected president-elect for 1939.

THE CHAIRMAN: Chapter V, Section 2, of the By-Laws reads, "All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect." The chair hereby declares Dr. Karl Ruddell, of Indianapolis, elected president-elect for 1939. I should like for Dr. Asher and Dr. McCaskey to bring Dr. Ruddell in.

Treasurer:

Dr. C. J. Clark nominated Dr. A. F. Weyerbacher to succeed himself. Nomination seconded by Dr. A. S. Giordano. Moved by Dr. Paul A. Garber, seconded and carried, that the nominations be closed and that the secretary cast the unanimous vote of the House for Dr. Weyerbacher for treasurer. Ballot cast by the executive secretary.

Delegates to the American Medical Association:

THE CHAIRMAN: The next in order of business is the election of delegates to the American Medical Association. Holdover delegates and alternates are:

Delegates: Don F. Cameron, Fort Wayne; F. S. Crockett, Lafayette.

Alternates: Norman M. Beatty, Indianapolis; A. M. Mitchell, Terre Haute.

Delegates should be elected at this time to succeed Dr. H. G. Hamer of Indianapolis and Dr. E. M. Shanklin of Hammond.

Dr. E. M. Shanklin nominated Dr. George Dillinger of French Lick. Dr. H. C. Wadsworth moved that the nominations be closed and that the secretary cast the unanimous vote of the House for Dr. Dillinger for delegate to the American Medical Association in 1939 and 1940. Motion duly seconded and carried, and ballot cast by the secretary.

Dr. Ralph L. Lochry nominated Dr. H. G. Hamer of Indianapolis to succeed himself. Dr. Davidson seconded the nomination and moved that the nominations be closed and that the secretary cast the unanimous ballot of the House for Dr. Hamer. Motion seconded and carried, and ballot cast by the executive secretary for Dr. Hamer for delegate to the American Medical Association to succeed himself for the ensuing two years.

Alternate Delegates to the American Medical Association:

THE CHAIRMAN: Nominations are in order for an alternate to Dr. Dillinger.

Dr. W. B. Christophel nominated Dr. A. S. Giordano of South Bend. Nomination seconded by Dr. A. C. Yoder.

Dr. F. T. Romberger moved that the nominations be closed and that the secretary cast the unanimous vote of the House for Dr. Giordano. Motion seconded and carried. Ballot cast by the secretary for Dr. Giordano for alternate delegate to the American Medical Association for 1939 and 1940.

THE CHAIRMAN: The chair will now receive nominations for an alternate delegate to Dr. Hamer.

Dr. F. W. Gregor nominated Dr. W. F. Kelly of Indianapolis to succeed himself. Dr. C. J. Clark moved that the nominations be closed and the secretary cast the unanimous vote of the House for Dr. Kelly. Ballot cast by the secretary for Dr. Kelly for alternate delegate to the American Medical Association for the ensuing two years.

Selection of City for 1939 Meeting

The chairman announced that he had received a letter from the Indianapolis Convention and Publicity Bureau inviting the Association to meet in Indianapolis again in 1939.

Dr. M. R. Lohman, delegate from Allen County, extended an invitation to the Association to meet in Fort Wayne in 1939.

Dr. George Dillinger, on behalf of the Orange County Medical Society, invited the Association to French Lick for its 1939 meeting.

On balloting, Fort Wayne was chosen as the 1939 convention city.

THE CHAIRMAN: Gentlemen, the president-elect, Dr. Ruddell.

DR. KARL R. RUDDELL: Mr. President and Gentlemen: I deeply appreciate the honor bestowed upon me by this body and I also fully realize the responsibilities. I need all your help. With that I promise to do my best to faithfully fulfill the obligations of this office.

Election of Councilors:

Reports were made concerning the election of councilors for the following districts:

First District—Dr. I. C. Barclay, of Evansville, re-elected.

Fourth District—Dr. M. C. McKain, of Columbus, re-elected.

Seventh District—The Seventh District Medical Society will meet in November at which time the councilor for the ensuing three years will be elected.

Tenth District—Dr. N. K. Forster reported that Dr. James M. White, of Gary, had been elected councilor of the Tenth District.

Thirteenth District—Dr. W. B. Christophel reported that election of his successor will take place at the November 2 meeting of the Thirteenth District Medical Society.

THE CHAIRMAN: At this time I should like to bring to your attention the action taken by the State Board of Medical Registration and Examination regarding the examination and licensure of graduates of foreign schools:

"After January 11, 1938, a graduate of any school of the Healing Art which is located outside of the United States and its possessions, who makes application for examination to the Indiana State Board of Medical Registration and Examination shall comply with the following requirements:

"A. Submit pre-medical qualifications to conform with the minimum pre-medical requirements of the Indiana Board; a complete record of the professional courses upon which the diploma has been granted; the diploma, which shall be from a school recognized by the Indiana State Board of Medical Registration and Examination; and a license to practice his profession in the country wherein the school of graduation is located, or in his native country. The diploma and other documents shall be presented in the original form, with translated copy of each attached thereto, and shall be visaed by a U. S. Consul in the country wherein the school of graduation is located.

"B. In addition to the requirements detailed above, an applicant for examination shall

submit evidence of having repeated the senior year in, and graduated from a school of his profession located in the United States which is recognized by the Indiana State Board of Medical Registration and Examination."

One other thing that may be brought to your attention at this time is a letter received from the Woman's Auxiliary telling us that the article appearing in *The Indianapolis Star* a few days ago entitled "Your Physician," was there as a result of their efforts.

REPORTS OF REFERENCE COMMITTEES

Sections and Section Work

House of Delegates.

Indiana State Medical Association.

Gentlemen:

The committee wishes to compliment the officers of the various sections for the high type of speakers and discussants chosen. The subjects selected have been excellent, not only from the viewpoint of the specialist, but also from that of the general practitioner.

Earl Van Reed, chairman

P. H. Schoen

R. H. Pierson

M. D. Wygant

Carl Clark

Dr. Van Reed moved the adoption of this report: motion seconded and carried.

DR. VAN REED: I would like to say this. It seems to me there should be some action taken regarding the meeting of these committees. At our first regular session no opportunity was given the chairmen of the various committees to contact the members of their particular committees. I knew none of the men on my committee—I contacted one after the first session of the House of Delegates. We were to meet in the Murat Theatre at 5 o'clock yesterday afternoon. Not a single member of the committee was there except myself. It seems to me an opportunity should be given for the chairman of the committee to announce where that committee will meet, so he will be able to contact his committee immediately after the first session of the House of Delegates.

THE CHAIRMAN: Mr. Hendricks will make a statement on that.

MR. HENDRICKS: This is a problem which has been disturbing the officers of the State Association for some time. Heretofore it has always taken one-half to three-quarters of an hour to appoint these reference committees. Because it took so much time it was thought the business of the House of Delegates would be speeded up some if, instead of having the members named at the time of the meeting, they were named before the meeting. The list of the members of these reference committees was printed in the October JOURNAL. It was thought that the chairmen would have time enough to make arrangements for their meetings.

DR. VAN REED: The first intimation I had was by postal card.

DR. R. L. SENSENICH: It seems to me that, following the experience both in this organization and in other state organizations, and also in the American Medical Association, from year to year there are going to be an increasing number of questions which will require the consideration and the hearing of interested people. The whole object of the organization and operation by way of reference committees is to save the time of this session and to assure adequate consideration of the subjects presented. Delegates should be encouraged to go before reference committees and discuss the various problems which are presented to them. The only way you can establish that is to improve upon the meetings of these reference committees and the method of getting the group together. It would seem that the secretary could designate some particular place of meeting, and I believe in general that would be preferable to the chairman designating his own room. Let the time be announced and changed later, if necessary. This is a matter that can be handled out of the headquarters office.

THE CHAIRMAN: This will be referred to the executive secretary for further study and action.

Rules and Order of Business

Dr. O. T. Scamahorn, chairman of this committee, reported that as no work had been assigned to his committee, the committee had no report to make.

Medical Education and Hospitals

Dr. O. O. ALEXANDER: I want first to bring to the attention of this House the fact that this committee appointed by Dr. Clark was essentially a fact-finding committee. It was mandatory that it confine itself to the questions brought forth in Dr. Clark's paper and for that reason it was impossible for it to mention the many wonderful and good things that might have been said of the medical department both here and at Bloomington. I also am requested by the chairman of the committee, Dr. Crockett, to call the attention of the House to the air of confidence which was apparent throughout the entire report in the present management of the medical school, both at Bloomington and at Indianapolis.

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Reference Committee expresses its appreciation of the painstaking character of the study given this matter by the members of the Committee on Medical Education Investigation and commends them for the fairness and completeness of the report.

The Committee presented its study under four divisions: First, dealing with the question of employment of full-time teachers and a full-time dean; second, questions as to the method of selection of candidates for entrance into the medical courses; third, concerning the purport of a report of the Council on Medical Education and Hospitals made following inspection of the Medical School in 1934; fourth, the attitude of the Council on Medical Education and Hospitals as to the desirability of having the Medical School divided as in the Indiana University School of Medicine.

Taking up the second division first concerning the method of selection of candidates for entrance into the medical courses, Committee comments are as follows:

It would seem, from this and other reports, that Indiana University follows closely the present accepted methods of other schools in selection of candidates.

It is the opinion of the Committee that every effort should be made to afford full opportunity and that preference should be given to all qualified citizens of the State who wish to obtain a medical education in our own State University. The report of the committee states that in the past ten graduating classes there were a total of 49 out-of-state students, or an average of 4.9 students per year. Your Reference Committee is in agreement that the material submitted as a result of the investigation of that committee indicates that the methods of selection of candidates for the school is in keeping with accepted methods in other similar institutions and that there is no evidence of an undue proportion of out-of-state students being accepted to the exclusion of local residents.

The third division of the report of the Committee on Medical Education Investigation in Indiana is concerned with the purport of a report of the Council on Medical Education and Hospitals of the American Medical Association. The Committee made the following comment on faculty personnel: "The teaching value of any faculty reflects over a period of time accumulative effects of such factors as, first, financial support, and second, the administrative policy in replacing or filling vacancies with equal or better talent. Medical faculties reach a position of excellence for many reasons, but a policy of weeding out the less efficient, while giving encouragement to those showing unusual teaching skill by rewarding them with greater opportunities, would produce many desirable improvements." The Committee would recommend that this suggestion be placed before

the dean of the Medical School for his consideration. Your Reference Committee finds itself in agreement with the comment made as to the desirability of weeding out the less efficient, while giving encouragement to those of unusual skill. The report of the committee does not state that conditions at the Medical School are such as to require any major faculty changes and merely offers this comment as a suggestion to be placed before the deans of the Medical School for their consideration. Your Reference Committee has no further recommendation to make.

As a report of the Council on Medical Education and Hospitals following an inspection of the Medical School pointed especially to insufficient financial support, your Reference Committee gave careful consideration to the statistics supplied, in which the financial support of our institution was compared with that of state institutions having medical departments in adjoining states. Because of the fact that a portion of the medical course is given at the University of Indiana and a portion of the course is given at Indianapolis, a basis for comparison could not be arrived at without encountering a great complexity of accounting problems. The figures, however, suggest that the Indiana University School of Medicine does not receive financial support comparable to that of other institutions similarly placed. Your Reference Committee recommends that additional funds be sought as needs are demonstrated.

The Committee on Medical Education Investigation in Indiana further commented upon the purport of a report of the Council on Medical Education and Hospitals as follows: "The consensus of opinion elicited from well-informed sources points to the advantages to be gained from the employment of a full-time dean and recommended that this suggestion be called to the attention of the Trustees of Indiana University. It is further recommended that a full-time professor be placed at the head of the Department of Medicine and that in the lower grades in the teaching staff, men in active practice be placed in teaching positions." In support of the recommendation that the dean of the University be on a full-time basis, the statement is made that there are many administrative duties connected with a medical school which are not likely to receive appropriate attention if he also has extended interests outside of the institution. Statement is further made that on the other hand it is probably desirable that some portion of the faculty should be engaged on a part-time basis and in this way it is possible for a medical school to acquire the services of extremely competent individuals who otherwise could not be obtained." The Committee states in another portion of its report that it finds itself in agreement with the statement that the cost of paying all clinical instructors on a full-time basis is absolutely prohibitive and that if the expense could be met, the difficulty in finding able clinical teachers for all-time positions is recognized as perhaps one of the strongest arguments against it.

Your Reference Committee, in reviewing the material presented, is directed to outstanding arguments which are presented both to the advantage and disadvantage of the medical school in the employment of personnel on a full-time basis. The matter of expense prohibits the employment of all of this personnel on a full-time basis. The selection of those positions to which full-time personnel should be assigned apparently must be judged upon the basis of the needs of the particular position and the material available. After considering the proposal and reasons presented it would seem to your Reference Committee that if the administrative duties of the dean could be made less burdensome and the standards of the Council on Medical Education be met by the employment of an individual properly qualified as an educator to assist in the administrative machinery as applied to the student body and also particularly to supervise the admission of patients and the utilization of clinical material, the institution might continue to have the services of a part-time dean and

have the advantage of the broader contacts and professional viewpoints of a physician actively engaged in private practice. Your committee further recommends that the Committee on Medical Education and Hospitals of the State Association maintain a closer contact with the deans of the University, if this is acceptable, in order that they may have the benefit of a cross-section of medical judgment of the State.

Your Reference Committee finds itself in approval of the recommendations of the Investigating Committee relative to the employment of full-time teachers in positions necessary to improve the status of the work in those departments. This practice is already in operation in many departments of the University, as is presented in some of the material submitted by the committee.

The fourth division of the report of the Committee on Investigation was concerned with the attitude of the Council on Medical Education and Hospitals of the American Medical Association as to the desirability of having the Medical School divided, as is the Indiana University School of Medicine, in which the third academic year (or first Freshman year in the medical course) is given at Bloomington, and the Sophomore, Junior and Senior years of medicine are being given at Indianapolis. Consideration of the material submitted points to the original agreement and intent to conduct a full four-year course of medical teaching in Indianapolis. Much historical material is presented with reference to the gradual abandonment of the Freshman course in Indianapolis and its inclusion in the course offered at Bloomington. The question of the cost of offering the first-year course in Indianapolis, as compared to the present cost of conducting this course at Bloomington, was presented as a possible reason for continuing the present arrangement. The Investigating Committee stated that "there seems to be no reason to believe these costs would be excessive in either place if duplication is avoided." The Committee apparently found no evidence to suggest that the cost of offering these courses in Indianapolis would be greater than the present costs in Bloomington. The Investigating Committee makes the following important statement: "In our interview with the Secretary of the Council on Medical Education and Hospitals of the American Medical Association we learn that the rating of our school as a whole was adversely affected by failure to have the full four years in medicine on one campus." In further support the Committee quotes four outstanding educators in the East and Middle West who expressed themselves unqualifiedly on the advantages accruing to the student where all four years of medical instruction were given on one campus. The Investigation Committee therefore recommends that the complete four-year course in medicine be given at the Medical Center in Indianapolis. Your Reference Committee is impressed with the importance of relieving the medical school of this unfavorable rating and finds itself in agreement with the recommendation of the Investigating Committee. It is advised that such transfer be made at such time as conditions will permit.

O. O. Alexander, *Chairman*
R. L. Sensenich
M. B. Catlett
Walter M. Stout
R. R. Acre

DR. ALEXANDER: Mr. Chairman, I move you the adoption of this report as read. (Motion seconded by Dr. Jon Kelly.)

DR. A. J. SPARKS: Regarding Dr. Crockett's report, I appreciate learning a great many things that I didn't know before. Also, I am interested in a medical school in Indiana that will be the equal of those elsewhere. But I am at a loss to know what the object of the investigation was and why it should be a matter for consideration in this House.

DR. ALEXANDER: As I understand it you want to know the reason for this whole work. That is hard to answer.

In Dr. Clark's presidential speech last year he brought forth these points that I just mentioned and he requested the appointment of a fact-finding committee on the medical school. That committee was appointed and it brought in the report that you heard read at the first meeting of the House of Delegates. The House of Delegates appointed this reference committee and we have submitted this report.

(On voting, this report of the Reference Committee on Medical Education and Hospitals was adopted.)

DR. ALEXANDER: This committee had referred to it a resolution requesting that the Indiana State Medical Association define the status of clinical, pathologic, and radiologic laboratories whether private or as departments in hospitals. Your reference committee unhesitatingly approved this resolution. I, therefore, move, Mr. Chairman, the adoption of the resolution presented by Dr. Giordano at the first meeting of the House of Delegates. (Motion seconded by Dr. D. L. Colglazier.)

Following discussion by Dr. J. C. Shattuck, Dr. A. S. Giordano and Dr. A. J. Sparks, on voting the House adopted the resolution as presented.

DR. ALEXANDER: This reference committee also had referred to it the resolution requesting the Commanding General of the Fifth Corps Area to assign a medical instructor to the Indiana Military Area Headquarters. Since it has to do with reserve officers and the committee found nothing wrong with it, we unanimously move the adoption of this resolution. (Motion seconded, and resolution adopted.)

Dr. Alexander's motion for adoption of the report of the Reference Committee on Medical Education and Hospitals as a whole was seconded, and carried.

Public Policy and Legislation

DR. J. E. FERRELL: I wish to state first that we find a great deal of duplication in the reports of these different standing committees. I think that thing should be worked out so it won't be so hard for the reference committee to make its final report.

House of Delegates,
Indiana State Medical Association.
Gentlemen:

Report of the Committee on Public Policy and Legislation:

This committee has the right idea in the matter of the better education of the public in what the medical profession has done and is doing in regard to safeguarding their health and welfare. We wish to condemn any interference of our government with the profession so long as the profession stays true to the precepts of the practice of medicine.

Report of the Committee on Civic and Industrial Relations:

We wish to emphasize the fact that in reporting treatments in the matter of insurance cases the doctor should give a full description of the treatment in order that the insurance company may have no criticism or objection to the payment of services rendered and thereby avoid a lengthy dispute and sometimes litigation.

Report of the Committee on Public Relations:

No report of activities. We would recommend that this committee be given more work to perform.

Report of the Committee on Veterans' Affairs:

This report should be studied in connection with the resolution that is before the House.

Report of the Committee on Study of Health Insurance:

The report of this committee gives rise to a number of diversified opinions. We feel that the matter has taken hold of the public so forcibly that in all earnestness we should make some effort to organize said health insurance so that it can be kept under the complete supervision of the medical profession. We also recommend that the profession be given a definite plan at once.

Report of Subcommittee to Study Maternal Morbidity and Mortality Rates for Indiana:

We wish to stress the report of this committee on the reports of deaths resulting from childbirth and we wish to emphasize that the physicians in Indiana pay more attention to prenatal care.

Report of State Board of Health Liaison Committee to Deal with the Social Security Act:

We feel that this committee has covered the ground in a very efficient way, and we at this time have no further suggestions to offer.

Report of Liaison Committee With the Indiana Crippled Children's Bureau:

We also feel that this committee has done a very excellent job, considering the adverse criticism it has been subjected to.

To our best judgment the Bureau is functioning and in order to get the best results we should be of as much assistance as possible, reserving at all times the right to offer constructive criticism whenever we see the need. As a comment for further explanation of the action of the Bureau, no clinics will be held unless called for by the local medical society, and, also, provision is made for the physician who examines an applicant, the treatment to be given under the bureau, to receive a fee for the examination. This is not commonly known and for this reason it is so stated here.

As you know, at the present time there are two centers or clinics where these children can be treated—one in Indianapolis, and the other in South Bend.

On this basis we recommend that a special post-graduate course be held to better acquaint the profession as to the needs and treatment of this type of a very important branch of our work.

Report of Committee to Study Cultists and Irregular Practitioners:

The report is very full and we recommend that every member of the State Association read the same and that we all make ourselves a committee of one to ferret out the irregular workers and report them to the proper authorities. Then and only then will we accomplish what is intended by this report.

Report of Special Committee to Study National Medical Situation:

You all have this report before you, and we wish to sanction every word it states and we wish to urge that something definite be done in the way of a program which can be presented to the lay people. We are being called on more and more to talk to lay audiences in explanation of our stand on socialized medicine; therefore, it is the business of this Association to have a program that we can all look upon with pride. We add the further comment that socialized medicine is in the offing and we must, if it does come, try to keep the whole situation in the hands of the medical profession; if we do not, it will be lowered to the hands of the politician, and God only knows what will happen to the noble medical profession.

Supplemental Report of the Chairman of the Council:

Especially do we wish to recommend to you the report of the chairman of the Council. Having been given after long deliberation and thought, we wish to recommend the same to your careful consideration. We feel that the question in regard to the raise in fees should be studied further.

We think this session of the Association is one of momentous times and it is of the utmost importance that we keep our eyes to the front and our minds keen to the fact that we are being weighed in the balance and we must not fail the cause that we would gladly give our lives to defend.

J. E. Ferrell, chairman
T. W. Oberlin
O. R. Spigler
E. O. Asher
C. E. Gillespie.

Dr. Ferrell moved the adoption of this report; motion seconded by Dr. C. J. Clark, and carried.

Publicity

House of Delegates,
Indiana State Medical Association.
Gentlemen:

Upon reviewing the report of the Bureau of Publicity this committee expresses appreciation for the excellent work and services performed by the Bureau during the past year. Outstanding was the origin of the "Indiana Plan" which received national acceptance and again brought Indiana to the fore in national medical affairs. It now becomes the responsibility of each member of this House of Delegates to see that this plan is explained and carried out in his respective county, and that the various other services of the Bureau of Publicity are fully utilized. We recommend the acceptance of the report as published.

The Committee on State Fair is commended for the time and energy devoted to the exhibits and tests conducted at the State Fair which attracted much favorable

comment and publicity. We recommend the acceptance of the report.

C. V. Rozelle, chairman
James F. Balch
Simeon Lambright
A. E. Stinson
M. F. Boulden.

Dr. Rozelle moved the adoption of this report; motion seconded by Dr. Boulden, and carried.

Hygiene and Public Health

House of Delegates,
Indiana State Medical Association.
Gentlemen:

Your committee had referred to it six committee reports. After studying the reports of the

Committee on Study of High School Athletics,
Committee on Mental Health,
Committee on Prevention of Traffic Accidents,
Committee on Control of Cancer,
Committee on Syphilis Control, and
Committee on Occupational Diseases,

your committee approves these reports as published in the Handbook of the House of Delegates.

Resolution regarding the control of the sale of barbiturates, etc., introduced by Dr. Lohman: after considering this resolution the committee recommends the adoption thereof.

We move the adoption of this report of the reference committee.

C. L. Botkin, chairman.
W. P. Morton
Albert Fisher
W. L. Green
C. M. Donahue.

Dr. Botkin's motion was seconded by Dr. Daniels and the report was adopted.

Amendments to Constitution and By-Laws

House of Delegates,
Indiana State Medical Association.
Gentlemen:

Your committee on amendments to the Constitution and By-Laws recommends the adoption of the change in the By-Laws, Chapter X, Section 8, as outlined in THE JOURNAL and the handbook. This, we believe, is satisfactorily clarified.

Further, we recommend the recognition of the Woman's Auxiliary and that they be privileged to approach the various county medical societies for the purpose of establishing active units therein.

Also, in order to conform to the Constitution and By-Laws of the American Medical Association, we recommend this change in Article IV, Section 5, of our Constitution, to read: "Who has attained the age of sixty-five years,"—this instead of seventy-five years as is now provided for.

M. R. Lohman, chairman
Will Thompson
Max Gitlin
Paul Garber
E. L. Libbert.

Dr. Lohman moved the adoption of this report as a whole. Motion seconded by Dr. D. S. Quickel.

DR. G. R. DANIELS: I move that that part about the age matter be stricken out for special consideration.

DR. H. C. WADSWORTH: As councilor it is difficult enough to keep the county medical societies organized. I do not want the Auxiliary to come into my district or county unless they are invited. As I understood that resolution, that is what they want to do. I move you that the portion of this report referring to the Auxiliary be tabled and that this resolution be tabled.

DR. N. M. BEATTY: The legislative committee has had an opportunity during the past year, in trying to work out ways and means of soliciting the proper public opinion, to use the Auxiliary. Some of these women have been of the utmost value. My understanding is that they never have been officially recognized. I think we are overlooking a tremendous ally if we don't adopt this resolution.

(Dr. N. A. Kremer seconded the motion made by Dr. Wadsworth. On voting, the motion was lost.)

DR. C. V. ROZELLE: As a matter of explanation of this resolution, I think there is hardly a handful of delegates in this House that understand the purposes and action of the Woman's Auxiliary. These women work entirely under the supervision of a board of directors within our own state society and they never undertake anything without the approbation of the board. Heretofore they have been unable to go into

a county medical society in order to organize an auxiliary in that society. They have had to wait until they were requested for a branch of the Auxiliary in that particular society. In other words, they were blocked out. This resolution is merely for the recognition of the Woman's Auxiliary as a part of the body of the State Medical Association and it will still perform under the same rules as it has in the past. I think this is something to which we should give full consideration.

(On voting, the House adopted the report of the Reference Committee on Amendments to Constitution and By-Laws as read.)

Reports of Officers

(This report was read by Dr. Minor Miller.)

House of Delegates,
Indiana State Medical Association.
Gentlemen:

Your Committee on the Reports of Officers wishes to report as follows:

On the President's address, we recommend the adoption as read, with the specific recommendation that the dues be raised \$5.00 per year.

Your Committee recommends that the President-Elect's address be received as read.

We recommend that the reports of the Executive Secretary, the report of the Treasurer, the report of the Chairman of the Council, the report of the Executive Committee, the report of the JOURNAL Publication Committee, and the report of the Statistician be received as printed in the handbook.

We especially wish to commend the report of the delegates to the American Medical Association to the consideration of the House of Delegates, to be carried back to their home societies, and that a thorough understanding of this report be had by all members of the State Society.

J. T. Oliphant, chairman
H. P. Graessle
A. C. Yoder
Minor Miller
W. C. Wright

Dr. Miller moved the adoption of this report.

Dr. R. L. SENSENICH: May I ask whether the committee contemplates the immediate raising of the dues \$5.00 or is that left to the decision of the Council? In other words, have we a program set up which will absorb the \$5.00 increase in dues, or will a business-directing body have a program? I personally think it would be well to have some provision whereby an increase could be made and not wait until the next meeting. On the other hand I do think in the process of good business, those who are responsible for the business affairs of the Association might determine how much the dues should be raised.

Dr. MILLER: It was our intent that the recommendation be that the dues be raised for 1939.

Dr. M. A. AUSTIN: A resolution was presented by Dr. Foster recommending that the dues of the State Association be raised \$5.00, but inasmuch as that matter must be decided upon by the House of Delegates, it was recommended that this be referred to the House for action. It is necessary, as I understand it, for the House to vote on an increase in the dues. We were not in a position to do otherwise than to recommend this to the House of Delegates for its action.

THE CHAIRMAN: I shall read to you, gentlemen, Article XI of the Constitution:

"Article XI.—Funds and Expenses

"Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds also may be raised by voluntary contributions, from the Association's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publication, and for such other purposes as will promote the welfare of the profession. All motions and resolutions appropriating funds must be referred to the Council for approval before final action is taken thereon."

Dr. F. W. CREGOR: I would like the chair to rule on the point whether or not we are amending the Constitution or the By-Laws in increasing the dues. I would like to call attention to the fact that the Association has accumulated the sum of \$45,000 in its treasury. I would also like to call attention to the danger of dis-

sipating the funds that accumulate in the treasuries of organizations of this kind.

MR. ALBERT STUMP: We would not be amending the Constitution or the By-Laws. There is nothing in the Constitution or By-Laws which fixes the amount of dues. The only article which governs dues is Article XI of the Constitution. According to that article the House of Delegates fixes the amount of dues after the Council has made its recommendation. This would not be an amendment to either the Constitution or the By-Laws.

Dr. J. T. OLIPHANT: In order to clarify the situation a little I would like to make a motion. There are two parts to the report: that part which has to do with the president's address and carries a recommendation for an increase in dues and that part which approves the balance of the reports of officers. I make a motion to amend Dr. Miller's motion and move that we consider only that portion of the report at this time that has to do with the president's address. (Motion seconded by Dr. Cregor, and carried.)

Dr. G. R. DANIELS: This might be considered snap judgment. I admonish you not to hurry the matter up; I don't want to force the county society on a quick thing like this.

Dr. F. S. CROCKETT: The state society of Minnesota raised their dues to \$15.00 but they spent a whole year selling the idea to their counties. I think the idea of promoting a favorable opinion first is a good point.

Dr. M. F. BOULDEN: I still can't see why we should force this raise in dues on the individuals in the county societies without the due consideration we are giving it here now. It should be carried back to the county societies. Dr. Cregor raised a point—what is the point of raising the dues? Where is this money to be used? That should be explained to the members in the county societies. I believe we should find some plan to present this to each individual.

Dr. SENSENICH: One point which should be made and that applies to the question that Dr. Cregor raised. After all it is probable that you can show the average member of the Indiana State Medical Association that we are expending a great deal more in his behalf than he pays for—because of advertising in THE JOURNAL. There are certain justifiable reserves—reserves in connection with the defense fund, etc. I think that that could all be presented so that the doctor would realize the advisability of a small addition to his dues.

Dr. DANIELS: I move that this matter be deferred until the next session. Let the counties instruct their delegates and some of their past presidents. It will be considered by the home boys as being too abrupt. (Motion seconded by Dr. Kremcr.)

Dr. Alexander offered the following motion as an amendment to Dr. Daniels' motion, whereupon Dr. Daniels withdrew his motion:

Dr. ALEXANDER: I will offer a motion that the matter of an increase in dues be referred to the next meeting of the Council, which takes place immediately after this meeting, with the instructions to the Council that nothing be done, no action be taken at this time, but that the Council arrange to disseminate this informative material throughout next year and that the matter be brought up at the next meeting of the House of Delegates. (Motion seconded by Dr. Boulden.)

Dr. CREGOR: I want to make an observation. As I said before, we have a sizable fund here. . . . I think of the conflict in which the medical organization finds itself today. . . . I do not observe that the Congress of Surgeons, or the Congress of Physicians, or the Inter-State Postgraduate Assembly, or indeed any of the societies which are representative of the specialties of medicine find themselves in any such conflict.

There must be a reason, and that reason is to be found in the mistaken policies of the American Medical Association.

You cannot settle this question on a basis of dollars. I have the feeling that to increase the dues and to provide more money will not be to serve any good purpose,

but will simply be wasted and probably get the association into greater conflict than it now finds itself.

If the association will direct its energies to the maintenance of high professional standards, which cannot be done on a dollar basis, it will have found the only proper solution of the problems that now confront it.

DR. C. H. McCASKEY: In the president's address he laid down a plan for postgraduate education. This fund would be for bettering your medical ability through education.

DR. MILLER: Remember your president's address: He also advocated more help was needed in the executive secretary's office, with specific recommendations that there be two more people employed.

Dr. Shanklin expressed the opinion that the financial statement for THE JOURNAL as published annually should be broken down so that it will clearly and distinctly show that his salary as editor of THE JOURNAL is no more than \$1,200.

(On voting, the motion made by Dr. Alexander was passed.)

DR. OLIPHANT: I move the adoption of the balance of our report. (Motion seconded and carried.)

Credentials

DR. O. W. SICKS: We have no business to report.

Miscellaneous Business

House of Delegates,
Indiana State Medical Association.
Gentlemen:

The committee commends the Committee on Arrangements on the annual meeting. An arrangement body has a big task in caring for the many details of a convention of this sort. This committee wishes to extend to the Committee on Arrangements our gratitude for a job well done.

The report of the Committee on Necrology presents in concise form the essential facts concerning our departed colleagues. Only 42 of 105 reported deaths were among non-members of county and state societies. Only one deceased physician was wealthy. The historian's report shows that county societies have not all responded well to requests for local facts of historical nature. Individual response in the form of personal communications is solicited in addition to formal county reports. We commend this committee and recommend the adoption of that report.

The report of the Committee on Secretaries' Conference evidences work being done nationally and at home upon problems of vital importance to the profession. This body continues to be increasingly important in State Association activities. We respectfully call your attention to and recommend the adoption of this report.

The report of the Committee on Inter-Allied Professional Conference shows that steps are being taken to unify and correlate the thought and activity of those groups in any way professionally concerned with the care for and prevention of sickness. The supplementary report of this committee consists of the constitution governing this Indiana Inter-Professional Health Council. We find no reason to criticize adversely the provisions of this constitution. We recommend the adoption of this report.

Hugh S. Ramsey, chairman
Philip E. Yunker
S. M. Cotton
Ralph L. Lochry
King L. Hull

Dr. Ramsey's motion for adoption of this report as a whole was seconded by Dr. Forster and carried.

NEW BUSINESS

DR. N. K. FORSTER: Certainly the business of this House would not be complete if we did not give some recognition to the untiring efforts of Dr. Baker, our president. I therefore wish to make a motion that we give a rising vote of thanks to Dr. Baker in sincere appreciation for his splendid efforts. (Taken by consent.)

DR. IRA E. PERRY: I offer this as an amendment to the Constitution:

"BE IT RESOLVED, That Section 3 of Article IX of the Constitution be amended as follows:

"By striking out the following words: 'No delegate shall be eligible to any office named in the preceding section, except that of councilor.'"

THE CHAIRMAN: This will lay over until next year and the secretary will be instructed to publish it in THE JOURNAL twice during the year.

DR. H. J. NORTON: I have the following resolution to present:

"WHEREAS, It has been recommended that the Indiana Plan of Preventive Medicine be translated into practical action throughout the State, and

"WHEREAS, In many localities in the State biological products necessary for this action are not available for the needy,

"BE IT RESOLVED, That the Indiana State Medical Association is favorably disposed to such biological products being made available to the health authorities where such local need exists, for use by any licensed physicians among the needy in these localities, to the end that the practical application of the Indiana Plan may be realized for all people."

THE CHAIRMAN: This resolution will be referred to the Reference Committee on Hygiene and Public Health.

DR. C. J. CLARK: The build-up for a successful convention here or any place else can be very materially aided or very materially retarded by the press. Actual coverage of the convention this year, it seems to me, has been very good. I make a motion that Mr. Hendricks be instructed to express our thanks to the International News Service, the United Press, the Associated Press, the Indianapolis Times, the Indianapolis Star, and the Indianapolis News. (Motion seconded by Dr. Daniels, and carried.)

DR. SAMUEL KENNEDY: I move that we thank the members of the Indianapolis Medical Society and their wives and families for the splendid entertainment we have had here. (Motion seconded, and carried.)

THE CHAIRMAN: While waiting for the reference committee report perhaps I might say that it has been a great honor that you have conferred upon me. It has been a lot of fun and I have enjoyed what little I could do, and I shall always carry with me the thought that you gentlemen have given me the highest honor that Indiana medicine can bestow. I have had marvelous cooperation, and I want to thank you all from the bottom of my heart for the job.

DR. C. L. BOTKIN: The Reference Committee on Hygiene and Public Health wishes to submit another report. Our committee votes very favorably and we move the adoption of the resolution regarding the recommendation that the Indiana Plan of preventive medicine be put into practical use. (Motion duly seconded, and carried.)

There being no further business, the House of Delegates of the Indiana State Medical Association adjourned *sine die*.

INDIANA STATE MEDICAL ASSOCIATION GENERAL MEETING

Wednesday, October 5, 1938

The first general meeting of the eighty-ninth annual session of the Indiana State Medical Association was called to order at 9:35 A. M., Wednesday, October 5, 1938, in the Murat Theater, Indianapolis, by the president, Dr. Herman M. Baker, of Evansville.

Dr. Baker introduced Dr. Robert M. Moore, president of the Indianapolis Medical Society, who welcomed the members to Indianapolis.

Dr. Baker then introduced Dr. Herman Morgan, secretary of the Indianapolis Board of Health and president-elect of the Indianapolis Medical Society, who gave a short address of welcome in substitute for an address by Mayor Boetcher, who was unable to be present.

Dr. Baker announced that Dr. George Dillinger, chairman of the Medical Section, would preside at this meeting following Dr. Baker's address, and that at the general meeting on Thursday morning, Dr. Paul Beard, chairman of the Surgical Section, would preside.

Dr. Baker read his presidential address, after which the scientific meeting was begun.

Dr. Dillinger introduced the first speaker, Henry F. Helmholtz, M.D., professor of pediatrics, University of Minnesota Graduate School of Medicine, Minneapolis-

Rochester, Minnesota. Dr. Helmholtz's subject was "Recent Advances in Pediatrics as Applied to the General Practitioner." A few minutes of questions and answers followed the presentation of the paper.

M. Herbert Barker, M.D., assistant professor of medicine, Northwestern University Medical School, Chicago, presented a paper on "The Role of Oxygen and Serum in Pneumonia." Several questions were asked and answered following this presentation.

Henry S. Ruth, M.D., associate professor of anesthesia, Hahnemann Medical College and Hospital, Philadelphia, presented a moving picture on "Physical Signs of Inhalation Anesthesia."

Following questions and answers concerning Dr. Ruth's subject, the meeting was adjourned at 12:00 noon.

Thursday, October 6, 1938

The second general meeting was called to order at 9:15 A. M., by Dr. Paul Beard, chairman of the Section on Surgery.

Dr. Beard introduced Dr. Stanley Clark, of South Bend, who in turn introduced the first speaker, Dr. F. E. Adair, assistant professor of clinical surgery, Cornell University Medical School, New York, who talked on "Tumors of the Breast." His paper was illustrated with lantern slides.

Everett D. Plass, M.D., professor of obstetrics and gynecology, State University of Iowa College of Medicine, Iowa City, Iowa, talked on "Obstetrics for the General Practitioner."

Herman L. Kretschmer, M.D., clinical professor of surgery, Rush Medical College, Chicago, presented a paper on "Cystitis in Women and Female Children."

Walter E. Dandy, M.D., adj. professor of neurological surgery, Johns Hopkins University School of Medicine, Baltimore, talked on "Tri-Facial Major Neuralgia."

Roy D. McClure, M.D., chief surgeon of the Henry Ford Hospital, Detroit, Michigan, presented a paper on "Diagnosis and Management of Cholecystitis."

The meeting was adjourned at 12:15 P. M.

SECTION ON SURGERY

The Section on Surgery of the Indiana State Medical Association met in the Murat Temple, Indianapolis, October 5, 1938, with Dr. Paul Beard, Indianapolis, chairman, presiding.

Dr. Wayne R. Glock of Fort Wayne read a paper entitled "Treatment of Hip Fractures." The paper was illustrated with lantern slides. Discussion was opened by Dr. Charles F. Thompson, Indianapolis.

Dr. Cocen L. Luckett of Terre Haute read a paper on "Treatment of That Acute Belly." Dr. Russell Malcolm of Richmond opened the discussion and showed some slides in regard to the subject.

Dr. H. O. Mertz of Indianapolis presented a paper on "Undescended Testicle." Discussion of this paper was opened by Dr. Walter Morton of Indianapolis.

At this point, Dr. Beard asked Dr. Frank Ramsey, vice-chairman, to assume the chair.

Dr. George F. Green of South Bend presented a paper on "Appendicitis." Dr. Joseph Clevenger of Muncie discussed this paper.

Dr. Beard resumed the chair, and introduced the next speaker, Dr. Murray N. Hadley of Indianapolis, whose subject was "The Surgical Treatment of Carcinoma of the Pelvic Colon." Dr. William H. Garner of New Albany opened the discussion.

Officers of the Section on Surgery for 1939 were elected as follows:

Chairman, Frank Ramsey, M.D., Indianapolis.

Vice-Chairman, William C. Wright, M.D., Fort Wayne.

Secretary, Joseph H. Clevenger, M.D., Muncie.

The meeting adjourned at five o'clock.

SECTION ON MEDICINE

The Section on Medicine of the Indiana State Medical Association convened in the Murat Theater, Indianapolis, at two o'clock, October 5, 1938, with Dr. George Dillinger, of French Lick, chairman, presiding.

The first speaker was Dr. Leon L. Blum of Terre Haute, whose paper was titled "Newer Concepts in the Interpretation of Anemias."

Dr. C. J. Clark of Indianapolis read a paper on "Some Points Concerning the Diagnosis of Heart Disease."

Dr. Wemple Dodds of Crawfordsville read his paper on "Laboratory Diagnosis of Syphilis."

Dr. Minor Miller of Evansville presented a paper on "The Health Department in Syphilis Control."

Dr. F. R. Nicholas Carter of South Bend read a paper on "The Treatment of Late Syphilis."

Dr. C. L. Williams of Logansport presented a paper on "Cerebrospinal Leses and Its Treatment."

The chairman called for questions on the previous papers, and the essayists answered questions by Dr. S. H. Kamman of Seymour, Dr. Erwin Blackburn of South Bend and Dr. James E. Engeler.

Section officers for 1939 were elected as follows:

Chairman, B. G. Keeney, M.D., Shelbyville.

Vice-Chairman, Walter L. Porteus, Franklin.

Secretary, John Warvel, M.D., Indianapolis.

Dr. E. Rogers Smith of Indianapolis presented a paper on "Metrazol in the Treatment of Schizophrenia."

A paper on "Management of Abortion" was presented by Dr. Frank W. Peyton of Lafayette.

Dr. Walter E. Dandy of Baltimore, Maryland, presented a paper on "Meniere's Disease."

The meeting adjourned at 5:10 p. m.

SECTION ON ANESTHESIA

The Section on Anesthesia was called to order at 2:20 P. M., Wednesday, October 5, 1938, by the chairman, Dr. George Rosenheimer, South Bend.

A paper entitled "Nupercaine Combinations Used in Spinal Anesthesia—Eight-year Review" was presented by Dr. Frank W. Ratcliff, Lafayette. Discussed by Dr. George Rosenheimer, South Bend, Dr. Floyd Romberger, Lafayette, Dr. E. T. Zaring, Terre Haute, and in closing by the essayist.

Dr. Henry S. Ruth, of Philadelphia, Pennsylvania, presented a paper on "Various Types of Hospital Anesthesia Organizations." Discussed by Dr. Karl R. Ruddell, Indianapolis, Dr. D. R. McDevitt, Indianapolis, Dr. J. R. Yung, Terre Haute, Dr. F. T. Romberger, Lafayette, Dr. Lillian Mueller, Indianapolis, and in closing by the essayist.

A paper entitled "Cyclopropane—A Résumé of Personal Experience" was presented by Dr. Charles N. Combs, of Terre Haute. Discussed by Dr. E. T. Zaring, Terre Haute, Dr. J. R. Yung, Terre Haute, Dr. F. T. Romberger, Lafayette, and in closing by the essayist.

The round table discussion was opened by Dr. Mueller suggesting that Dr. Ruth make a few additional remarks, which he did, and closed with a few further remarks from Dr. Romberger.

The following section officers were elected for 1939:

Chairman, Roy Geider, M.D., Indianapolis;

Vice-Chairman, E. T. Zaring, M.D., Terre Haute;

Secretary, Lillian B. Mueller, M.D., Indianapolis.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

The section on Ophthalmology and Otolaryngology of the Indiana State Medical Association convened at 2:10 P. M. in foyer number one of the Murat Theater, Indianapolis, October 5, 1938. Dr. D. A. Bartley, of Indianapolis, chairman, presided.

The chairman announced that the order of the program would be changed somewhat so that those who wished to attend the Medical Section meeting to hear Dr. Walter Dandy at 4:30 could do so.

The first paper on the program was presented by Hugh A. Kuhn, M.D., of Hammond, whose subject was "Allergy in Relation to the Eye, Ear, Nose and Throat." Dr. E. L. VanBuskirk, of Lafayette, opened the discussion and was followed by Dr. Kenneth L. Craft, of Indianapolis, and Dr. Bennett Kraft, of Indianapolis.

Dr. William F. Gessler, of Fort Wayne, presented a paper on "Sinusitis—Its Diagnosis and Non-Operative Treatment." Dr. E. L. Rigley, of South Bend, opened the discussion of this paper, which was discussed also by Dr. John Frank, of Valparaiso.

Dr. Ralph J. McQuiston, of Indianapolis, read a paper on "The Surgical Treatment of Sinusitis." Dr. Raymond R. Calvert, of Lafayette, opened the discussion of this paper and was followed by Dr. J. K. Leasure, who asked Dr. John F. Barnhill to discuss the paper. Dr. Barnhill graciously complied, saying that it was a pleasure for him to be present, and that he had driven several hundred miles out of his way in order to be present.

At this time, officers were elected for 1939 as follows:

Chairman, B. W. Egan, M.D., Logansport;
Vice-Chairman, Donald Dean, M.D., Rushville;
Secretary, Robert M. Dearmin, M.D., Indianapolis.

Dr. Parker Heath, of Detroit, Michigan, presented a talk on "Management of Glaucoma," following which numerous questions were asked and answered.

Dr. D. Hamilton Row, of Indianapolis, presented a paper on "Survey of the Applicants for the Blind Pension," discussion of which was opened by Dr. Eugene L. Bulson, of Fort Wayne. Dr. Robert Masters, of Indianapolis, also discussed the paper.

Dr. E. W. Dyar, of Indianapolis, stated that Dr. Verne K. Harvey, director of the Indiana State Board of Health, had mentioned to him that while Indiana law requires the classical Crede method of treating the eyes of the newborn, the law apparently is not enforced and the law is not practiced as generally as it should be. Dr. Dyar suggested that the Section entertain a motion whereby the Section would put its stamp of approval upon the universal use of the Crede method of prophylaxis throughout the State of Indiana. Dr. Dyar moved that the Section is unqualifiedly on record as approving that no other form of prophylaxis be used than the Crede method. The motion was seconded and carried.

Discussion brought out that while the Crede method originally was a two per cent silver nitrate solution, dropped into the eye and then washed out, later use has been a one per cent solution of silver nitrate, dropped into the eye and allowed to remain there. After some discussion, and with the permission of Dr. Dyar, it was taken by consent that at the present time the Crede method of prophylaxis requires the use of a one per cent solution of silver nitrate.

Dr. C. J. Rudolph, of South Bend, presented the following resolution which, with the approval of the Section, is to be presented to the House of Delegates in 1939.

WHEREAS, It appears to the House of Delegates of the Indiana State Medical Association that there is a lack of adequate information among the general public concerning the conservation of vision, and

WHEREAS, There is a large group of both adults and children in the State of Indiana receiving little or improper eye attention, and

WHEREAS, There are incompetent non-medical men who are holding themselves out as eye specialists and as qualified to examine eyes and advise concerning treatment,

THEREFORE, BE IT RESOLVED, That a Committee for the Conservation of Vision be established in the Indiana State Medical Association, said committee to consist of five members to be appointed by and to serve during the term of the president. The committee shall choose one of its members as a chairman and one as a secretary.

The duties of the committee shall be (1) to encourage ocular hygiene; (2) to disseminate knowledge for the prevention of blindness and the conservation of vision; (3) to acquaint the public and particularly industries and schools concerning proper illumination and other protective measures for the eyes; and (4) to help create and advise sight conservation classes. Dr. Rudolph pointed out that this committee can advantageously cooperate with the United States Public Health Service, the American Social Hygiene Association, the American Student Health Association, and the Committee on Industrial and School Lighting of the Illumination Engineering Society. Illustration of problems to be attacked include:

(1) Industrial—(a) foot candle power of illumination required for various types of work; (b) heavily tinted lenses when working with very bright lights or torches; (c) wearing of goggles when danger of foreign body being admitted to the eye is great; (d) examination of employees by competent eye men.

(2) School—(a) creation of special classes for children handicapped by greatly impaired vision; (b) illumination requirements, as proper foot candle power, elimination when deemed necessary.

(3) General Public—(a) encourage ocular hygiene; (b) dissemination of knowledge to eliminate false impression entertained by the layman.

By unanimous consent, the resolution asking for the establishment of a Committee on Conservation of Vision was passed. It was suggested that, if possible, the chairman of the Section be permitted to appoint the committee. Dr. C. W. Rutherford suggested that men from each locality in the state should be represented on the committee, as from South Bend, Fort Wayne, Indianapolis, Terre Haute, and Evansville.

The meeting adjourned at 5:10 P. M.

LOCAL SOCIETY REPORTS

BOONE COUNTY MEDICAL SOCIETY held a meeting at Lebanon, October eleventh, at Witham Hospital. Dr. William Woods of Indianapolis talked on "Management of Colles Fracture." The society voted to cooperate with the Boone County Tuberculosis Association in giving tuberculin skin tests to all senior high school students in Boone County.

* * *

CASS COUNTY MEDICAL SOCIETY held a meeting September twenty-third at Logansport. Mr. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, addressed the members.

* * *

DAVISS-MARTIN COUNTY MEDICAL SOCIETY members held a meeting at Washington, Indiana, at the county hospital, September twenty-seventh. Dr. W. R. Cleveland of Evansville presented a paper on "Present Status of Radiation Therapy in the Treatment of Malignancies."

* * *

DEARBORN-OHIO COUNTY MEDICAL SOCIETY members met at Lawrenceburg in the New Reagan Hotel, September twenty-ninth, for a dinner meeting. Dr. M. C. McKain, of Columbus, district councilor, was the principal speaker. Attendance numbered seventeen.

* * *

DUBOIS COUNTY MEDICAL SOCIETY held a meeting at Huntingburg, in the public library, September twenty-seventh. Dr. William Caldwell talked on "Heart Diseases." Twelve members were present.

* * *

FLOYD COUNTY MEDICAL SOCIETY members met at New Albany, October fourteenth. Dr. James W. Baxter, Jr., presented a paper on "Sulfanilamide and Estrogenic Substance." Attendance numbered seventeen.

FORT WAYNE ACADEMY OF MEDICINE met at the home of Dr. A. P. Hattendorf, October eleventh, to hear Dr. S. R. Mercer speak on "Drug Eruptions."

* * *

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY held a meeting September twenty-seventh at the Fort Wayne Chamber of Commerce Building. Case reports were presented by Drs. W. J. Rissing and Charles R. Dancer. Forty-eight members were present. This society utilizes the meeting of the fourth Tuesday of each month as one largely given to a discussion of business of the society.

At the September twentieth meeting of this society, Dr. Milton G. Schnitt of Chicago talked on "Technic and Application of Diathermy." Attendance numbered sixty-seven.

* * *

GIBSON COUNTY MEDICAL SOCIETY held a meeting at Princeton, October tenth. Dr. Matthew Winters of Indianapolis was the principal speaker and his subject was "Contagious Infections of Childhood." Dr. O. T. Brazelton reported upon the annual meeting of the State Association in Indianapolis. Attendance numbered twenty-six.

* * *

GRANT COUNTY MEDICAL SOCIETY and Grant County Dental Society held a joint meeting September twenty-seventh in Marion to hear a discussion on medical-dental business bureaus. Principal speaker was J. L. McCracken, manager of the bureau in Indianapolis.

* * *

HANCOCK COUNTY MEDICAL SOCIETY held its regular meeting at the Columbia Hotel in Greenfield, October twelfth. Dr. C. R. Bird, of Indianapolis, was guest speaker. His subject was "Diagnostic Trends and Psychoneurosis."

* * *

HENRY COUNTY MEDICAL SOCIETY held a meeting at Newcastle, September fifteenth. Dr. Charles R. Bird, of Indianapolis, talked on "Psychoneurosis in General Practice." Attendance numbered eighteen. This was the first fall meeting.

* * *

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY members heard Dr. B. R. Kirklin, of Rochester, Minnesota, discuss "Early Diagnosis of Cancer of the Alimentary Tract," at the October eleventh meeting.

In the final matches of the Indianapolis Medical Society golf tournament, at the Hillcrest Country Club, September fourteenth, Dr. John Kingsbury tied Dr. Herbert Maginnis and were followed by Dr. E. Lukenbill and Dr. E. Dyar, who also were tied, and by Dr. O. W. Sicks. Mr. Don Rowles won the guest prize for low gross score with a card of 79. At the meeting following the dinner, it was decided to expand the athletic program of the society beginning next year. Three golf medal tournaments will be held in the spring, midsummer and fall with the total scores of the three tourneys to decide the annual championship instead of match play. In addition, there will be skeet, tennis, and horseshoe titleholders among the Indianapolis Medical Society members.

* * *

JOHNSON COUNTY MEDICAL SOCIETY members held a dinner meeting at Franklin, October fourteenth. This was a meeting of physicians and their wives.

* * *

KNOX COUNTY MEDICAL SOCIETY held a meeting at the Jewel Cafe in Vincennes, September thirteenth. Dr. R. E. Lyons, Jr., of Bloomington, was the principal speaker, his subject being "Rheumatic Fever and Rheumatic Heart Disease." Twelve members were present.

At the October eleventh meeting, Dr. C. B. Bohner, of

Indianapolis, talked on "Diagnosis and Treatment of Common Allergic Reactions." Nineteen members and speaker were present.

* * *

LAKE COUNTY MEDICAL SOCIETY held its Indiana University program at the Lake County Tuberculosis Sanitarium, Thursday, October thirteenth. Speakers included Dr. Robert M. Moore, Dr. Louis Segar, Dr. H. O. Mertz, and Dean W. D. Gatch. This was a dinner meeting, and the business session included nominating officers for 1939.

* * *

LAPORTE COUNTY MEDICAL SOCIETY held a meeting at LaPorte, September fifteenth. Dr. A. S. Giordano, of South Bend, talked on "Clinical and Laboratory Diagnosis of Infectious Mononucleosis." Attendance numbered twenty-two.

* * *

MADISON COUNTY MEDICAL SOCIETY held a meeting at St. John's Hospital in Anderson, October 17. Dr. F. E. Schmidt of Chicago spoke on "Pneumonia." Drs. Rozelle and Quickel reported on the state convention activities.

* * *

MONTGOMERY COUNTY MEDICAL SOCIETY members met at the Culver Hospital in Crawfordsville, September twenty-second, to hear Dr. Louis H. Segar, of Indianapolis, discuss "Supplementary Diets in Feeding Infants and Children." Attendance numbered twenty-three.

* * *

MUNCIE ACADEMY OF MEDICINE members met at the Hotel Roberts in Muncie, October eleventh, to hear Dr. Warren C. Breidenbach of Dayton, Ohio, talk on "The Evolution of Collapse Therapy in Pulmonary Tuberculosis." Dr. M. H. Draper of Irene Byron Sanatorium, Fort Wayne, led the discussion.

* * *

PORTER COUNTY MEDICAL SOCIETY members met in Valparaiso, September twenty-seventh, for a business meeting. Plans for a new fifty-bed county hospital were discussed and a study of the need and supply of medical care in the county was made. A moving picture film on "Amebiasis," was shown.

* * *

RANDOLPH COUNTY MEDICAL SOCIETY members heard Dr. John Dalton, of Indianapolis, discuss "The Aspects of Syphilis in Pregnant Women" at the meeting held in the Randolph County Hospital, at Winchester, October tenth.

* * *

SHELBY COUNTY MEDICAL SOCIETY members met September fourteenth in Shelbyville. Dr. Oliver W. Greer, of Indianapolis, was the principal speaker. He discussed the crippled children rehabilitation program. Dr. B. G. Keency showed a moving picture loaned by the American Society for the Control of Cancer."

* * *

ST. JOSEPH COUNTY MEDICAL SOCIETY members held a meeting in the Columbia Club, South Bend, September twentieth. Dr. R. L. Sensenich, Dr. I. Sandock, and Dr. Alfred Ellison presented a discussion of "Socialized Medicine." Attendance numbered seventy. A resolution was read recommending the securing of an executive secretary for the society; the resolution will be voted upon at the next meeting.

* * *

TIPPECANOE COUNTY MEDICAL SOCIETY members met at St. Elizabeth Hospital and Lincoln Lodge in Lafayette, October eleventh, for an afternoon clinic and evening dinner meeting. Dr. Philip S. Hench of the Mayo Clinic, Rochester, Minnesota, talked on "Diagnosis and Treatment of Joint Disease." Attendance numbered fifty.

VANDERBURGH COUNTY MEDICAL SOCIETY held a meeting at Evansville, September thirteenth, to hear Dr. M. S. Durkee talk on "Serum Treatment in Pneumonia." Attendance numbered forty-two.

* * *

VANDERBURGH COUNTY MEDICAL SOCIETY and Vanderburgh County Tuberculosis Association held a joint meeting at Boelne Hospital, Evansville, October eleventh. This was a dinner meeting. Dr. Horton Casparis of Vanderbilt University talked on "Tuberculosis and the Importance of Early Diagnosis." Attendance numbered 150, half of whom were doctors. The society held a business meeting following the scientific program, at which time it was voted to adopt a plan similar to the "Sedgwick Plan" as a guide to formulate a local plan and the employment of a full-time executive secretary. An educational health program is to be instituted locally.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY held a meeting in Richmond, September sixteenth, to hear Dr. R. W. McNealy of Chicago talk on "Some Phases of Gall Bladder Disease." Attendance was thirty-five.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

OFFICERS FOR 1938-1939

- President. Mrs. M. B. VanCleave, Terre Haute.
- President-elect. Mrs. W. E. Tinney, Indianapolis.
- First vice-president. Mrs. M. J. Thornton, South Bend.
- Second vice-president. Mrs. C. V. Rozelle, Anderson.
- Third vice-president. Mrs. Charles F. Willis, Evansville.
- Fourth vice-president. Mrs. G. W. Seward, North Manchester.
- Recording secretary. Mrs. James Baxter, Jr., New Albany.
- Corresponding secretary. Mrs. Charles N. Combs, Terre Haute.
- Treasurer. Mrs. C. L. Bock, Muncie.
- Councilor. Mrs. Fred B. Wishard, Pendleton.
- Parliamentarian. Mrs. C. F. Voyles, Indianapolis.
- Historian. Mrs. U. G. Poland, Muncie.
- Organization. Mrs. John Carmack, Indianapolis.
- Legislation. Mrs. Verne K. Harvey, Indianapolis.
- Press and Publicity. Mrs. W. F. Hughes, Indianapolis.
- Hygeia. Mrs. C. E. Ragan, Terre Haute.
- Program. Mrs. E. O. Nay, Terre Haute.
- Public Relations. Mrs. George Dillinger, French Lick.
- Exhibits. Mrs. Carl Schoen, New Albany.
- Pioneer Memorials. Mrs. O. G. Pfaff, Indianapolis.

In accepting the office of president, Mrs. VanCleave said:

"There are waves in the ocean that never reach the beach,

There are waves of emotion that never reach speech."

"This is such a time. The confidence you have placed in me by electing me president, I shall always cherish. It is said that 'Woman is the only living autocrat who rules without a throne and governs without law.' Nevertheless, as an auxiliary, we hope to rule from a throne known as Health Education and govern by the laws of Medical Ethics. With the support of the splendid women of our State Board and the Doctors' Advisory Council, I accept the responsibilities cheerfully and whole heartedly as your next president.

The following excerpts are from our national president, Mrs. Charles C. Tomlinson:

"There was a time, within the memory of every one here, when an interest in politics was considered, if not

Continued on page xxi

PROFESSIONAL PROTECTION



A DOCTOR SAYS:

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Continued from page xxi

sacrilege, at least in poor taste to a dignified audience, but we have gone a long way since then. Interest in politics is now being forced upon us.

"In our efforts to help laymen interpret sound medical facts, our understanding aid is Hygeia. Serving as a medium between the doctor and the layman, it is the only publication, of national circulation, devoted wholly to health, which acts as an interpreter of scientific medicine to the public. Today *Hygeia* enjoys, in addition to great prestige, a large subscription list. It is my belief that the problems of both the profession and the Auxiliary would be simplified by the doubling and redoubling of this subscription list. Informed people are amenable to reason. One of my predecessors several years ago stated that the Auxiliary is the torch-bearer of the medical profession. I would add that *Hygeia* may be considered the torch itself which every doctor's wife will do well to carry among those whom she may seek to enlighten."

MRS. W. F. HUGHES,

Press and Publicity Chairman.

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THE DIAGNOSIS AND TREATMENT OF SMALLPOX

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Indianapolis

A history of contact and the presence or absence of a vaccination scar should put one on guard at the onset of an acute infectious disease characterized by headache, fever, chills and severe pain in the back. Symptoms have not occurred during the incubation, which usually lasts twelve to fourteen days but may be as short as five or as long as twenty-one days.

The clinical stages of smallpox are the invasion, the appearance of prodromal rashes, the eruption and the dessication. The onset is usually sudden, with chills, and in children convulsions frequently occur. Frontal headache is rarely absent, vomiting and epigastric pain are frequent and pains in the back are very characteristic. The symptoms usually are intense, and the severe back pains should make one suspicious. The temperature may be 103° F. or more on the first day, the pulse rapid, and respirations may be increased. The patient is frequently constipated, has a furred tongue, offensive breath, and the throat may feel sore. Restlessness, sleeplessness, photophobia and delirium may occur in this stage. The patient may appear quite toxic and may be prostrated. Fever rises during this period and may reach 106° F. The severity of the initial symptoms do not necessarily indicate the severity of the attack to follow, but mild symptoms are followed by a mild attack. As is usual in the virus diseases, an early white blood cell count may be low or normal, but a leukocytosis occurs later in all forms.

Confusing rashes appear on the second day of the disease and occur in about fifteen per cent of the cases. Unless an epidemic is in progress these may give rise to errors in diagnosis for they are apt to be scarlatiniform, morbilliform or petechial in character. Frequently these are confined to the "bathing-drawers area" but may be general and the morbilliform rash may involve the face. These rashes usually subside after two

days but may remain during the development of the true eruption of smallpox which makes its appearance with great regularity late in the third day or early in the fourth day of the disease.

The eruption almost always appears first on the forehead, the temples, the wrists, and backs of the hands. It is at first macular and appears as small red spots, not unlike flea bites. It may appear first about the mouth and occasionally first on the extremities. The eruption rapidly makes its appearance over the scalp, face, neck, ears, forearms, and hands. During the succeeding twenty-four hours it will have spread to the lower extremities and have made its appearance on the body usually appearing in order on the back, arms, breast, and finally the legs and feet. The lesions appear centrifugally and are apt to be more numerous on parts normally exposed to the air than on the body; however, the entire body may be thickly covered. The lesions are said to appear in one crop and all to be of the same age. This is somewhat misleading for the entire crop may be as long as three days in making its appearance. Usually the lesions on any given part will be very close to the same stage.

In about twenty-four hours the macules have increased in size and have assumed the form of elevated papules which have a characteristic shotty feel. They may be so numerous as to become confluent even at this stage. On the third day of the eruption or fifth or early sixth day of the disease many of the first lesions will contain clear serum and by the fourth or fifth day (sixth or seventh day of the disease) most of the lesions will have become vesicular. The vesicles are quite firm and indurated, much more so than the vesicular lesions of any other disease. The vesicle is at first pinkish and surrounded by an areola; later, because of changes in the fluid content, it stands out like a pearl. The lesions at this stage show umbilication

and in the larger lesions the trabeculae which give them a multilocular character may be seen. If these vesicles are pricked with a needle, their contents are only partly emptied; however, many of the lesions will collapse completely and many of them may not be umbilicated. Mild cases are said not infrequently to have lesions entirely lacking in umbilication. The slightly irregular indentation seen in the larger vesicles is the umbilication that is of diagnostic importance. This umbilication is not to be confused with that seen during dessication of the pustules, for this is likely to occur in other pustular lesions. Later in the vesicular stage the larger pocks have a yellowish center surrounded by a whiter ring of serum. Areas that have been irritated by poultices and the like are apt to be the site of more numerous lesions than those left alone.

The stage of suppuration is usually reached about the sixth day of the eruption (eighth to ninth day of the disease) and is brought about by increased exudation of leukocytes into the vesicles. Some of the pustules have the color of ordinary pus, others may appear grayish white or chalky in color. The areola surrounding the lesion becomes broader, redder and darker, and in those cases with numerous lesions the whole skin becomes reddened and swollen. The entire face and head at this stage may be a shapeless mass with eyes so swollen and pus-filled that the patient can not see. The lesions on the mucous membranes may cause the patient great difficulty in swallowing, may affect his voice and even his breathing. During this stage the patient's temperature rises and he presents a picture of severe toxemia because of the extent of the inflammation and the enormous amount of pus in the combined lesions. Schamberg estimated that one of his patients carried more than five quarts of pus in his skin. The temperature, pulse, respirations and mental condition reflect the septic character of the disease at this stage. The temperature may rise to 106° F. or more in the evening and fall in the morning; the pulse usually follows it.

The stage of dessication usually begins about the eleventh or twelfth day of the eruption. On the face, retrogression may be seen to begin about the eighth day. The inflammation and swelling of the skin begins to subside, the patient feels much better and is brighter. The features begin to assume a more normal appearance. Many of the pocks shrivel and collapse without rupture, but more of them rupture and exude pus which dries into yellowish or brownish crusts. If neglected, the crusts become black and form a hard mask. The odor becomes more offensive as the various lesions, in order of their appearance, undergo a similar change. The lesions that dry without rupture gradually become hard and horny in character. The color gradually becomes reddish brown or mahogany and this appearance may be of value in diagnosing a mild case seen at a late stage and may yield a clue as to the source of other cases. The lesions on the palms of the hands and soles of

the feet may remain for weeks. The patient's fever gradually falls during the process of dessication and becomes normal before it is complete. In mild cases the temperature may drop soon after this stage begins and remain normal. The lesions in the mucous membranes usually heal more rapidly than those on the skin. In many cases the crusts do not all detach themselves for several weeks. A relatively mild case from the standpoint of systemic reaction, and yet having large numbers of semi-confluent lesions, did not lose all of his crusts in spite of good hygiene until eight weeks after the onset. The patients complain bitterly of itching during this stage and scratching may result in secondary pyogenic infection. Scratching probably has little effect on the degree of scarring, however.

The lesions occur in the mucous membranes and may involve the nasopharynx, mouth, throat and trachea. These lesions undergo changes similar to those on the skin except that there is no horny layer to be broken down. They also occur on the margins of the eyelids and on the conjunctiva.

The fever of smallpox occurs in two stages, the high initial fever which may subside as the true rash appears, and fever during suppuration. In the milder cases it may subside completely and not appear again; in the more severe types, this temperature may only partly subside or may merge into the later stage if the patient survives. The second phase of the fever appears as the stage of suppuration sets in and all of the symptoms are a reflection of the inflamed pus-filled skin. This is the stage during which most deaths occur. The temperature is septic in character and may reach 106° F. or more. It subsides gradually as the stage of dessication progresses.

The types of cases have been classified as hemorrhagic, confluent, discrete and varioloid. The hemorrhagic types have been described as purpura variolosa or black smallpox and hemorrhagic pustular smallpox. In the more severe type the purpuric eruption follows the prodromal rash and the patient dies on the third to fifth day before a characteristic eruption appears. These cases, in the absence of others, may be confused with other hemorrhagic rashes. In the hemorrhagic pustular type, hemorrhages begin in the vesicular or pustular stage, the hemorrhages first appearing in the areolae and spreading rapidly. Hemorrhages in both types occur in the mucous membranes. Death in the latter usually occurs by the seventh to the ninth day. In the confluent form, pocks coalesce, particularly on the face, hands and feet, and less in proportion on the body. This coalescence gives rise to large superficial abscesses and the course of the disease is accordingly more severe than in the discrete type in which the lesions remain separate. Death in the discrete type may occur about the twelfth to the fourteenth day during a typhoid state which develops with extreme prostration; however, most of these patients recover. With the confluent type death may occur from the tenth to

the twelfth day with delirium, prostration and circulatory failure. Hemorrhages may appear later than in the usual type and contribute to death. During convalescence pneumonia may cause death in smallpox.

Varioloid is smallpox modified in the individual by vaccination. Although the disease is very mild, unvaccinated contacts are as "exposed" as contacts with severe cases.

The essential points to be noted in all types of cases are the type of onset, sudden chill and fever, frontal headache, nausea and vomiting, and a backache of unusual intensity. The eruption and its manner of development, macular and papular for two days, vesicular for two to three days, pustular for about four days with dessication following over a period of weeks are important points in differentiation of this disease. The apparently greater affinity of the lesions for the ordinarily exposed parts of the body, or its centrifugal character are also important. In doubtful cases delay in the diagnosis is justifiable, but temporary isolation should be instituted. The presence or absence of a vaccination scar must be considered.

DIFFERENTIAL DIAGNOSIS

The onset and prodromal rash may simulate scarlet fever. The early sore throat is not as severe and the true scarlet rash is not apt to appear as early as the prodrome of smallpox. Measles may also be confused with the disease, for the prodromal rash and early macular stage may simulate this disease so closely that it can only be differentiated with difficulty. Koplik spots are not seen and the early coryza is not present although photophobia may be. One may simply have to wait a few hours or days to complete the diagnosis. It may not be possible to differentiate a fulminating hemorrhagic case of smallpox from one of scarlet fever.

Chickenpox: Atypical mild smallpox as against atypical severe chickenpox will probably cause the most difficulty in diagnosis. The two diseases are frequently epidemic at the same time. The fever, chill, nausea and vomiting with pains in the back that may occur with chickenpox usually accompany the eruption or at least single lesions may be found on the patient on the first day. Occasionally a prodromal rash may be present. In chickenpox, the fever does not subside as the rash appears as it does in mild smallpox. The lesions usually appear earlier on the back or chest, but the first ones may appear on the face or limbs. Frequently the initial symptoms will be overlooked and nothing noted until the lesions appear. The lesions of chickenpox are most numerous on the unexposed parts of the body, or it is centripetal in character. The lesions may occur anywhere on the body that smallpox lesions occur, but centrifugal distribution or its appearance on the palpebral border should excite suspicion. Lesions on the palms and soles occur in chickenpox but much less frequently than in smallpox. The lesions on the palms and soles

and in the scalp may even have the shotty feel of smallpox; the others do not. Varicella vesicles may even be slightly umbilicated and certainly the pustules frequently are. The vesicles may be emptied by a single needle prick because of their unilocular character; some smallpox lesions will also be completely empty; many, however, will not. The vesicles of varicella look more like little water blisters and are easily ruptured. Varicella lesions are never as deep seated, the rose colored papules become vesicular in a few hours, pustules will be present in forty-eight hours and some of the crusts will drop off in five days. The lesions appear in crops, usually on three successive days, but crops may continue to appear for a week or more. Even during the first two days all stages up to the pustular may be present and this is never true in even mild smallpox. The lesions of chickenpox are usually oval or diamond shaped in the groins and folds of skin.

The history of indisposition for some weeks, the presence of an initial lesion, the mucous patches, the distribution of the lesions on the body, their absence from the palms and soles should differentiate most cases of pustular syphilis from smallpox. The lesions of syphilis are more chronic, more indolent in development, vary greatly in size and are multiform in character. The development of lesions in smallpox proceeds with great regularity. The Wassermann test and the presence or absence of a vaccination scar will be of help in differentiation. This error is not infrequent.

History should differentiate impetigo contagiosum, acne, drug eruptions and eczema. The vesicular lesions of pemphigus are quite fragile as compared to those of smallpox and the time and order of appearance are not similar, and there is no history of acute illness immediately preceding the eruption.

DIAGNOSTIC TESTS

The flocculation test made with a suspension of ground variolus material against antivaccinal rabbit serum, incubated at 37 C. has been found to be of practical value in England. Paul's test, consisting of the attempted production of keratitis by inoculation of the rabbit's cornea, is not positive in a sufficient number of cases to be of practical value. The more recent production of the lesions by inoculating the chick embryonic membranes with variolus material is more promising. The complement-fixation test has been shown to be positive up to the thirteenth day.

TREATMENT

The patient should at once be isolated and reported to the health authorities. The ultimate consequences to the patient, to the contacts, and to the community can only be mitigated by cooperation with the proper authorities. All contacts, not recently vaccinated, should immediately be immunized and kept under observation for sixteen days. If the patient can be removed and disinfection carried out, handling of contacts is facilitated.

Quarantine measures as indicated by the state health authorities should be instituted and the patient must be isolated until all lesions have disappeared. Isolation of the patient in a hospital for contagious diseases is highly desirable, for better management and better nursing care may be had. If this is not practicable, the patient should be isolated in a single room in the home. All unnecessary articles and furniture should be removed. Only those entering into the actual care of the patient should be allowed in the room and these individuals should be instructed in the proper care of the patient and of themselves. All excreta should be disinfected with bichloride of mercury, chloride of lime, phenol or formalin (which though not a good bactericidal agent does have considerably more viricidal action than many other disinfectants) before being disposed of in the sewer. Cloths and paper napkins soiled with pus or nasal secretions should be burned. All dishes and utensils used by the patient should be boiled for one-half hour. Articles of clothing should be boiled, subjected to live steam for one-half hour or dry heat at 230° F. for two hours. Articles of clothing may also be put in closed can containing formaldehyde gas and left for twenty-four hours. Infected material that can not be handled in this way should be burned. Attendants should discard clothing worn in the room and thoroughly bathe and wash the hair. A good lather of soap will destroy most viruses and this may be supplemented by a bichloride bath. The physician should guard against unnecessary contact and wash his hands and face thoroughly. Caps, gowns, masks and gloves may well be worn in handling these patients. A patient dying from the disease should be thoroughly wet with 1:1000 bichloride of mercury and wrapped in a sheet wet with this before being prepared for burial. The room should be thoroughly scrubbed with soap and water and repapered, painted or whitewashed after disinfection. A recovered patient should have a bichloride and soap and water bath before being released.

All persons should be encouraged to be vaccinated. Comparative rarity of the disease has

caused us to become so lax that unvaccinated individuals have actually graduated from our own medical school in recent years.

TREATMENT OF THE INDIVIDUAL

There is no specific treatment for smallpox. The fever may be partly controlled with baths; salicylates and the like. Acetyl salicylic acid and phenacetin may be used for pain but when this is severe morphine should not be withheld. During the febrile periods and when there is difficulty in swallowing, liquid and soft diet should be given as indicated. The diet should be as nutritious as possible and may well be supplemented by the addition of vitamins. Orange juice and brewer's yeast or the pure forms of C and B₁ and B₂ may be valuable in avoiding the collapse that may occur in the pustular stage, particularly in patients who have been on a poor diet before the illness. The patient must have fluids in adequate amounts by one route or another. Nausea and vomiting may be allayed by gastric lavage with sodium bicarbonate or by the administration of intravenous glucose. The eyes should be irrigated with salt or boric acid solution, and silver proteinates, ophthalmic ointments or oil applied. Atropine may be required if ulcerative keratitis develops. Warm or even cool baths may be given during the pustular stage if there is much fever. These baths will also aid in clearing away the purulent exudate. Gauze soaked in sodium bicarbonate solution laid over the face and other areas may give much comfort and keep the exudate from hardening. Weak phenol may be added to the solutions, oils or ointments one wishes to apply to allay the pain and itching which may be almost unbearable at times. Abscesses and furuncles that may appear should be drained when fluctuant. During decrustation, the deeper pocks on the palms and soles may have to be lifted out to save the patient time in quarantine. Complications must be met as they arise; symptomatic treatment, fluids, food, sedation, baths and the like are the only things that avail once the disease is established.

Again, prevention of this loathsome disease should be our aim. In no other disease do we have so adequate or cheap a weapon.

INCIDENCE OF SMALLPOX IN INDIANA DURING PAST TEN YEARS

	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	Total
January	33	16	10	14	12	84	495	889	243	471	2267
February	17	3	14	7	7	72	432	809	226	471	2058
March	16	22	4	7	9	40	447	781	380	710	2416
April	55	16	9	2	13	48	436	690	205	515	1989
May	73	8	3	8	4	31	541	689	322	454	2133
June	61	15	4	6	8	47	350	440	382	311	1624
July	29	2	7	0	1	15	159	275	166	104	758
August	15	1	0	5	2	7	61	116	114	53	374
September	8	0	1	3	1	2	31	73	61	22	202
October	10	4	6	4	3	3	31	76	86	51	274
November	73	7	11	12	12	11	31	233	630	61	1081
December	219	12	13	9	16	29	36	242	653	209	1438
TOTAL	609	106	82	77	88	389	3050	5313	3468	3432	16614

SMALLPOX CONTROL

KARL C. EBERLY, M.D.*

Fort Wayne

It is probable that the incidence of smallpox dates back to ancient times. It reached its peak of destruction in the eighteenth century in an epidemic that carried well into the nineteenth century. It is difficult to realize that during that period smallpox was the most destructive of all diseases and caused millions of deaths, especially when you consider the insignificant role it plays in disease incidence and mortality today. It was fortunate that at that time, a hundred and fifty years ago, Edward Jenner discovered the relation between cowpox and smallpox and was able to start the practice of vaccination which was not only the first of preventive procedures but has become one of the best, if not *the* best. Certainly it has been instrumental in taming a common, highly contagious, virulent and disfiguring disease into a very mild, rare and unimportant one.

Over a period of forty years, Fort Wayne has had 2,894 cases of smallpox and 5 deaths. The last death occurred in 1934, which we believe was the only smallpox death in the United States during that year and, therefore, it becomes of interest. The attending physician on this case stated that he did not see the patient until forty-eight hours before his death, at which time he was suffering from uremic poisoning and apparently died of nephritis. He was unable to obtain any of the previous medical history, consequently was not in a position to know whether the nephritis was new or old, so he assumed that the smallpox was the immediate cause of death. The man had been out of the city and apparently had contracted the disease at that time.

In studying the incidence of smallpox in Fort Wayne it appears that epidemics occur on the average of every five to six years, and last about two years. Our last epidemic occurred in 1929 and 1930 with a total of 553 cases; our worst epidemic was in 1917 and 1918 with 661 cases. Strange to say, but one death occurred during an epidemic year and that was in 1905. In 1901 and 1916 there were 14 cases each year with two deaths in 1901 and one death in 1916. In 1934 we had but one case and that one died. Analysis of these statistics is so paradoxical that it is hard to explain.

If smallpox recurs about every five years in Fort Wayne, then we were due for an epidemic in 1935. Early in that year a case occurred in one of our schools which had an enrollment of 541 pupils. The children in the lower grades were inspected and, much to our surprise, we found that practically none of them had been vaccinated. The entire school was immediately closed and the stu-

dents were given forty-eight hours in which to be vaccinated by their family physician or, upon the physician's request, to be vaccinated at the Department of Health. Those who refused vaccination were placed in rigid quarantine for two weeks. The result of this one case was the loss of 538 days to the pupils of that school. That means a great deal of confusion and difficulty for both the students and teachers. Although it was very unfortunate for that particular school, it was fortunate for the diphtheria immunization campaign which was launched shortly thereafter. A large amount of publicity was given this particular case with the result that we were able to include vaccination in our drive against diphtheria.

During the diphtheria campaign, the results of which we reported previously through this *JOURNAL*,¹ we advocated vaccination as well as immunization. It was interesting to note, from the reports of the 26,000 visits the nurses made on the parents of 18,000 children during the summer of 1935, that there was more opposition to vaccination than immunization. Parents still remembered the stories of their grandmothers concerning the large number of arms that had nearly been lost and the other terrible things that resulted from vaccination. A fortunate thing happened to overcome this anti-vaccination propaganda. A mother of numerous children informed the nurse she would not permit her family to have this poison (vaccine virus) injected in their arms. A few days later one of her children developed smallpox and she immediately had the rest of her family vaccinated. Obviously when this experience was related to other mothers it greatly impressed them.

The home visits of the nurses and their willingness to explain to the parents the harmlessness of the new methods of vaccination greatly aided the educational program of the school physicians, the Medical Society and the Board of Health. Little by little the parents not only requested immunization against diphtheria but also vaccination against smallpox. The doctors urged vaccination as well as immunization. Very rarely now does anyone meet objections, except religious, to vaccination. However, it is interesting to note that although parents will have their children vaccinated, very seldom will they be vaccinated themselves. Apparently they still harbor the apprehension of their parents. In this manner we stopped the epidemic that was due in 1935 and 1936, assuming there would have been one according to the previous cycles. The 15 cases we did have were mild in character and the contacts were all thoroughly investigated and vaccinated within four days after

* Secretary, Fort Wayne (Allen County) Board of Health.

¹Eberly, Karl C.: Banishing Diphtheria. *Jour. Ind. State Med. Assoc.*, Vol. 30, No. 8, p. 380, (August) 1937.

exposure or quarantined for two weeks. No health law has been enforced more vigorously than this one because undoubtedly smallpox is the most unnecessary of all contagious diseases. Since 1935 we have had but 3 cases without any deaths, and they were extremely mild; in fact, they were very difficult to diagnose.

It is self-evident that if any severe contagious disease (especially those diseases that run in cycles and are preventable) is going to be controlled, some system of education must be developed that will constantly bring to the attention of the people the necessity for the preventive measures. Certainly it is ineffective to sporadically attack such diseases as smallpox and diphtheria, especially when there is not an epidemic. We believe we have developed a system that is nearly as adequate as any can be, excepting, of course, compulsory vaccination. We have so closely allied vaccination with the diphtheria program that we are in reality talking about one. Our first procedure, when the birth certificate arrives at the office of the Health Department, is to mail to the parents a letter of congratulation and enclose a copy of the birth certificate. In this letter we emphasize very strongly the value of this copy of the birth certificate which has become so vital since the passing of the Social Security, Old Age Pension and other such laws. The people realize this and do not hesitate to see that the certificate is free from error, and if an error is found they have it corrected at the Health Department. Also in this letter is a paragraph or two about the necessity and importance of frequent examinations of the baby by their doctor. No names appear on these letters; they are all signed "Board of Health." At six months, a second letter is mailed, again urging frequent physical check-ups of the baby, the necessity for diphtheria immunization and, later on, smallpox vaccination. This letter is followed as soon as possible by a visit from the public health nurse. Her duty is to explain just what the procedures are which protect the baby and to answer the necessary questions. Under no circumstance is the mother frightened into having anything done. If the parents claim they cannot afford this medical service, then their physician is contacted. If he desires to take care of the baby, the Board of Health will pay him \$1.00 each for immunization, vaccination, and the Schick test and will also furnish the material, providing the work is done before the child is one year old. If he does not desire this arrangement, with his permission, the child will be properly protected at the Health Department. Let it be emphasized that no medical service of any type is rendered at the Department of Health without the permission of the attending physician. In other words, every practicing physician is the individual health officer for his own patients and it is the duty of the Health Department to aid him in every manner possible in the control of contagious diseases. A third letter is

sent to the parents when the child is one year old. It is very similar to the second letter but emphasizes more strongly vaccination. The nurse follows this letter also. A fourth letter is mailed when the child is four and a half years old. It, too, is similar to the others but dwells also on the physical defects, such as eyesight, hearing, tonsils, teeth, etc. Parents are urged to prepare their child for school from the physical viewpoint, and every child that meets certain physical requirements is given a very beautiful "Blue Ribbon Certificate of Merit." Shortly after the arrival of this letter the so-called "summer round-up" occurs. This is conducted by the parent-teacher clubs and every preschool child is examined by the school physicians. Those who are found to have physical defects are referred to their own physician for treatment.

By this method, a few weeks after the baby is born, the parents are contacted by the Board of Health from an educational viewpoint only. This contact is continued until the child enters school and comes under the supervision of the school physicians. Thus we have been able to accomplish two very important things: (1) More firmly cement the patient-doctor relationship, and (2) acquaint people with the Department of Health. They learn that the object of the Department is to educate them and to protect their children. Consequently when they develop contagious diseases they look upon the quarantine officers as friends, not as policemen who are there to punish them for their illness. They become health-conscious and are quick to advise the Department of any infringement of the health laws in their neighborhood. In these years of disaster, when people hesitate to call a physician, it has often been from the neighbors that we received our first information about some child being sick with a contagious disease. The parents, instead of trying to avoid it, accept quarantine readily.

Various committees from the Medical Society gave freely of their time and efforts to formulate these plans, and naturally they reported their contagious diseases promptly and cooperated in every way possible to improve Fort Wayne's health record. Through the newspapers it is brought to the people again and again that their physician is actually their Health Officer and upon him depends the health of their families as well as of the community, and the function of the Department of Health is entirely educational, to enforce the health laws and to supply the physicians with certain diagnostic and therapeutic aids necessary in the control of contagious diseases.

We wish to repeat that no medical services of any kind are rendered at the Department of Health that are not first approved by the family physician, and that we pay the physician \$1.00 each for immunization, vaccination, and the Schick test and also supply the materials. Besides saving many lives and much suffering, the physicians of this county have saved the taxpayers thousands of dol-

lars and certainly are entitled to this consideration.

By our system of uniting the efforts of the city officials, the people, the doctors, nurses and hospitals, preventable diseases have become a rarity in this city, and never has compulsion been used. Cooperation and education alone have been relied upon, and the doctors have been more than willing to do more than their share in our various drives against contagious diseases. It seems fitting to mention this at this time when the present system of medical practice is being criticized and claimed inadequate by some. We offer Fort Wayne's markedly improved contagious disease record as a striking tribute to the efficiency of the American system of medical practice and the direct condemnation for the need of any form of socialized medicine in the control of contagious diseases.

CONCLUSIONS

1. Smallpox has occurred in Fort Wayne in cycles of about five to six years.

2. Every contact of a case is either vaccinated within four days from date of exposure or quarantined for two weeks.

3. When a case occurs in a school, that school is immediately closed and not re-opened until every child has been properly vaccinated or quarantined if vaccination is refused.

4. A continuous educational program is conducted in such a manner that all the parents of young children receive adequate information concerning immunization and vaccination.

5. Vaccination of a healthy child under one year of age is harmless to the child and to the attitude of the parents if done carefully and if over-dosage is avoided.

6. It is not necessary for the Health Department to perform these preventive measures except in emergencies or with the permission of the attending physician.

7. The private physician should be paid a fee for performing these services for his indigent patients.

8. The American system of medical practice is suitable for the control of contagious diseases and it is not necessary for any physician subsidized by a taxing unit to do wholesale immunizations or vaccinations except in emergencies.

TRIGEMINAL NEURALGIA AND PAINS IN THE FACE*

WALTER E. DANDY, M.D.

Baltimore

There are several pains which may, but should not, be confused with trigeminal neuralgia, and it is of the utmost importance that no mistake be made in the differential diagnosis. There is a pain which occurs in one spot at some point in the face, a tiny little spot, and the pain is there at all times—twenty-four hours in the day. It never radiates and never spreads. That pain, because it is in one spot, is called topalgia. This is, as one should readily realize, a functional or psychogenic pain. We know this because there is no organic pain referable to a nerve that can be confined to one spot all the time; it would have to spread.

These pains are particularly distressing because they are constant and there is no possible surgical relief. The great mistake is to assume that because we don't know what may cause the pain, various attempts may be justified to cure it by pulling teeth, injecting nerves, and operating upon sinuses. And as is true with all psychogenic individuals, everything that is done to that patient makes him worse.

A second type of pain is also functional, but more disturbing in diagnosing because it isn't so localized. This pain radiates beyond the domain of the fifth nerve. From an anatomical point

of view, it is obvious that it cannot be an organic pain. The pain will radiate over one side of the face, spread very frequently to the other side of the face, go down the neck, the shoulder and back of the head. When pains become diffuse and are not confined to a distribution of a nerve or to its neighboring branches through which it may communicate, that pain can only be functional. Again, the great mistake of assuming that the pain must be organic and of doing things to these patients, must be emphasized.

Both these patients and those with the topalgic pain usually shown the stigmata of a psychogenic individual. They sleep poorly, they have nightmares, they don't want to associate with people, but want to remain alone. They covet sympathy. They have weeping spells and not infrequently give the history of repeated nervous breakdowns. These pains must be judged upon an anatomical basis, and upon that you will not make the mistake of operating upon these patients.

On the other hand it is always a mistake to assume that a pain is functional until you are very certain that it cannot be organic. It should be the last and not the first diagnosis. At least no harm is done by assuming that the pain is functional. However, if you assume that one of the functional pains is organic, allied perhaps to trigeminal neuralgia, and then cut the fifth

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nerve and permanently paralyze the sensory functions of the face, the patient in addition has the numbness for which he will not forgive you. It is bad to err on either side, but at least do not err upon the side of operating and leaving the patient with permanent sequelae.

There is another common pain in the face, i.e., the so-called sympathetic neuralgia, because it has the stigmata referable to a sympathetic nervous system. This pain comes in paroxysms—not a steady, constant, relentless pain. The pain is restricted to one side of the face, so much so that it resembles and is very closely allied to migraine, but in addition to that it has the disturbed functions of the sympathetic system—namely, a drooping of the eye, reddening of the eye, tears in one eye, and blanching or increased reddening of the face. This pain is cured by removing the stellate ganglion in the neck.

The most important pain, from the standpoint of surgical treatment, is trigeminal neuralgia or tic douloureux. There are two types of this, the one very common and the other less so—the latter is the so-called neuralgia, in contradistinction to the tic or paroxysmal pain. The neuralgic pain is usually referred to just one branch of the nerve (possibly more depending on the site of the lesion) and it is there much of the time with increases and decreases in intensity, but it is not a paroxysmal pain. That pain is usually due to some lesion along the course of the peripheral branch of the fifth nerve—very frequently carcinoma around the mouth, or tumors along the Gasserian ganglion. The most common pain in the face is tic douloureux, usually such a characteristic

pain that it can't be mistaken for any other type of pain. In its characteristic form there isn't any other pain like it. It is a pain that is referred to one or two, or at times all three divisions of the fifth nerve—to the lower lip, the lower jaw, tongue on one side, the upper lip, to the region of the eye, and to the forehead. The pain comes on suddenly; it lasts for a few moments and leaves just as suddenly as it comes, although it may taper on either end. That pain is also brought on by sensory stimuli to the face, a little blast of air, brushing the teeth, eating or drinking, rubbing the face. These sensory precipitants of this pain do not occur in any other type of pain.

In between those pains the patient is perfectly free of all pain and then suddenly, without any warning, it comes on anew. This pain has for many years been regarded as idiopathic, but there is a very definite underlying gross cause for it. I should like to emphasize a few points concerning this pain because it has its direct bearing upon treatment. It is a pain that nearly always comes after twenty-five and usually after thirty, but it may come earlier. I have seen instances as early as fifteen. It is, therefore, a disease of later life. It is a pain that never will cure itself spontaneously and that you will understand because of the underlying causes of this pain. The pain will be there to the end of one's life. There may be remissions for months or even for a year or more, but it is coming back; this fact dictates the form of treatment that should be utilized.

This pain is never due to an infected tooth. It is never due to infected nasal sinuses and it is never due to a focal infection anywhere in the

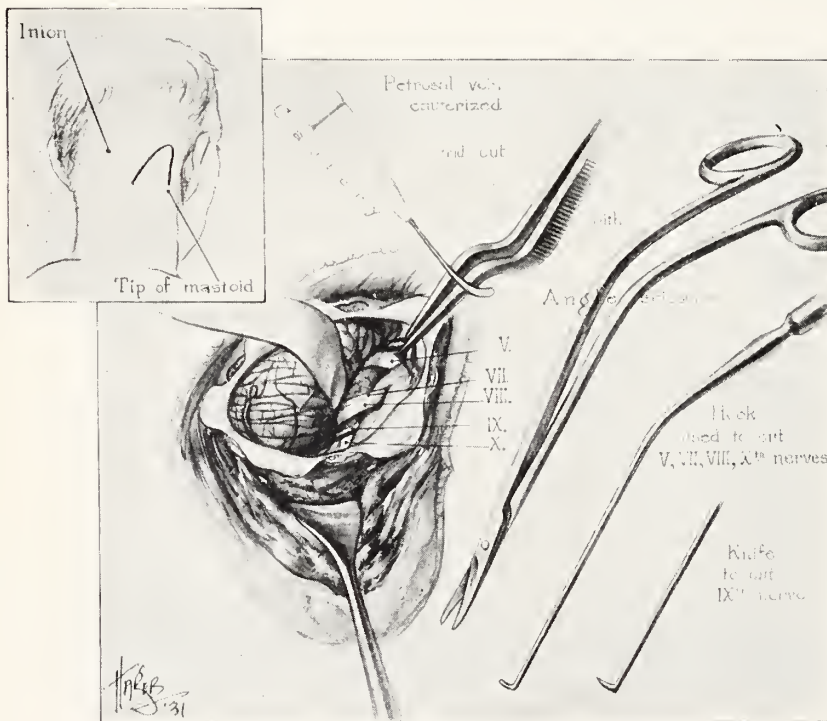


Figure 1. Drawing showing the fifth, eighth, and ninth nerves exposed intracranially by the same operative approach after elevating the cerebellum. Most of the nerves are now divided with the cautery; the fifth nerve is picked up with the forceps and the desired amount divided. The eighth nerve is picked up with the hook and the desired amount divided; the ninth nerve can be divided with the cautery or with an angle knife.

system. These facts have a very important bearing, too, on the treatment, because so many patients with this terrific pain (and it is one of the worst of all pains) are treated by removal of teeth; many of them have lost all their teeth in a futile effort to find a cure. Over and over again they are operated upon for presumed sinus infections, perhaps in the hope that a focus of infection will be uncovered; but treatment of these types can never accomplish anything because the underlying cause is never peripheral. A peripheral lesion along the sensory branch of the nerve can never produce a paroxysmal pain. Given a paroxysmal pain, it always means that the upper neuron that is between the ganglia of the nerve and the brain stem is affected, and it is only a lesion there that can do it. How do we know that? By analyzing brain tumors. If you take all of the tumors along the course of the fifth nerve, there being many of them, you will find that there is never one on the peripheral branch of the nerve that causes this pain; never is there one at the Gasserian ganglion. Always the tumor is on the sensory root of the fifth nerve!

If this fact is appreciated, unnecessary peripheral treatments are avoided. And if we realize that the pain is never cured spontaneously, we realize that the only sensible form of treatment is one that is going to produce a permanent cure and not one that will give only a transient period of relief.

There are, as you know, two forms of treatment for this pain: (1) injection or section of the nerve peripherally, and (2) operation at the sensory root or Gasserian ganglion. If the nerve is injected peripherally, relief is obtained for a year or eighteen months (if the injection is a good one). This, therefore, must be repeated on each return of pain throughout the patient's life. By section of the sensory root of the fifth nerve, a permanent cure is produced.

The curative treatment of trigeminal neuralgia was first introduced by Krause of Berlin in 1893, at which time the Gasserian ganglion was removed. The results of that treatment have been improved upon from year to year until it has now become a very safe and effective procedure. The mortality is now about one-half of one per cent.

There are still many liabilities in the wake of this operative procedure as performed by modifications of Krause's temporal route. First, there is the so-called keratitis in the eye which occurs in a high percentage of cases. Within twenty-four or forty-eight hours after the operation the eye becomes red and lusterless and dry. When this occurs it means that keratitis is developing. Once keratitis develops,

the patient from that time on throughout his life is subject to repeated attacks of similar character and each attack keeps him an invalid for several days, or even weeks. Very frequently the keratitis progresses and, if not properly treated, produces perforation and loss of the eyeball. Many eyes have been lost in this way. The percentage is less with the best of surgical skill, but it is always a very serious liability. Nevertheless, it is a price the patient is willing to pay in order to be liberated from such a terrible pain. The next liability is the loss of the motor division of the nerve in a high percentage of cases. From this loss the jaw deviates to one side and the teeth do not approximate on mastication. If the patient subsequently develops bilateral trigeminal neuralgia, which occurs in about 2 to 5 per cent of the cases, the second side could not be operated because if both motor branches were lost, swallowing would not again be possible. A third liability of this operation is facial paralysis which occurs in perhaps 10 per cent of the cases. In most instances there is partial recovery of function, but in some there is no recovery at all. The paralysis is due to injury of the geniculate ganglion either directly or through tearing the superficial petrosal nerves out of the ganglion as the dura is stripped from the petrous temporal bone. And a fourth liability is that every now and then, from an extradural hemorrhage, epilepsy follows in the wake, and once epilepsy begins it is incurable.

A few years ago when developing an operation for the removal of acoustic tumors (cerebellar

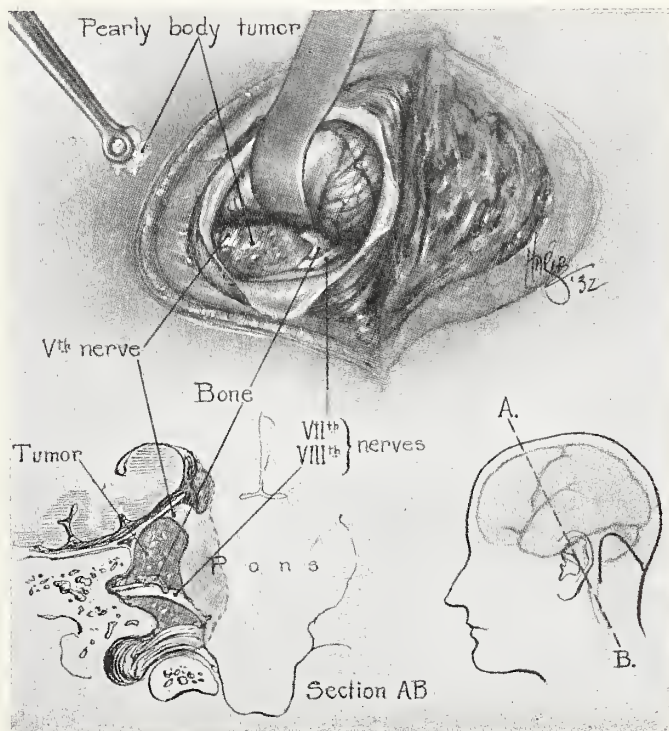


Figure 2. Pearly body tumor in the cerebellopontine angle causing tic douloureux.

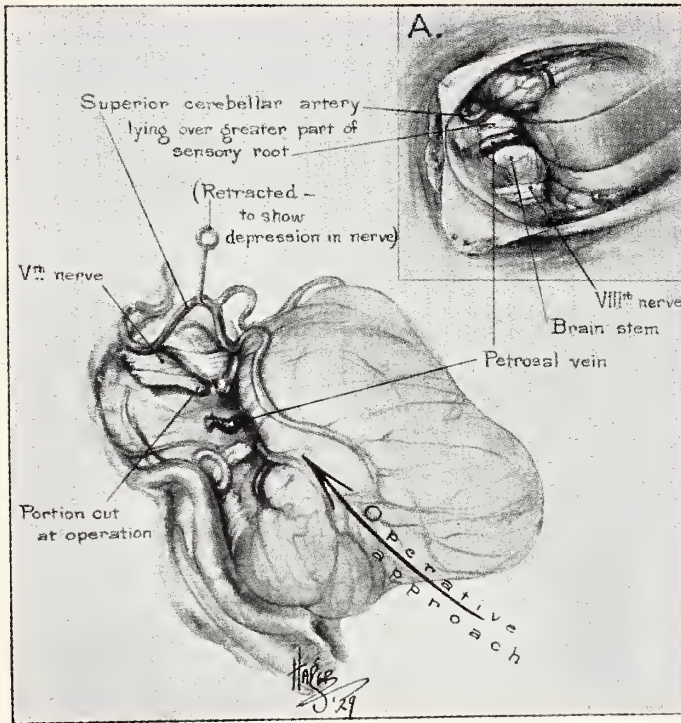


Figure 3. Drawing showing arterial loop in the lateral cistern indenting the sensory root of the fifth nerve and causing trigeminal neuralgia.

exposure) the sensory root of the fifth nerve was seen to be in full view. Why couldn't the nerve be divided at that point in patients with tic douloureux? It was tried and found much easier technically. After elevating the cerebellum the nerve was at once exposed without any intermediate bleeding. At first there appeared to be no reason to believe that division of the nerve at that point would have any advantage other than the simplicity of performance over the division of the nerve by the temporal route. But as time went on and cases multiplied, it was found that all of the liabilities that occurred by the temporal route were avoided.

One never saw keratitis following division of the nerve. This sequel was not due to loss of sensation, as has been supposed. It has resulted from operative trauma to the Gasserian ganglion, i.e., it was atrophic keratitis; it required only an instant to divide the nerve as exposed under the cerebellum, whereas by the temporal route one was constantly and over a long period packing bleeding vessels and thus traumatizing the Gasserian ganglion and the sensory root. This trauma produced the keratitis. The avoidance of keratitis is alone a very big advantage.

Then, too, the motor root of the nerve was never injured, because it is quite a great distance from the sensory root in the posterior cranial fossa. Therefore, in cases of bilateral tic douloureux one could divide both fifth nerves (and at a single operation) and have no fear of injuring the func-

tions of mastication. Moreover, one never injured the seventh nerve because it was a safe distance from the fifth nerve. And one never caused epilepsy because epilepsy is always due to a lesion in the cerebral hemisphere (never the cerebellum) and, therefore, only trauma to the cerebral hemisphere can produce it. As time went on we found that all of the liabilities of the old operative procedure were avoided and at no additional risk. (Figure 1.)

Many years ago, at the suggestion of Spiller of Philadelphia, fractional division of the nerve was introduced and appeared to be a distinct advance. One could often divide only part of the sensory root and still cure the pain. It was just as easy to divide the root partially in the posterior approach under the cerebellum. But there is always one deterrent to partial section of the nerve, namely, the danger of recurrence (about 10 per cent). I still prefer to do a partial section on younger patients because it means a great deal to preserve the sensation to the face. However, in older persons I prefer to divide the nerve completely. If recurrence should develop, it is very easy to

reopen the wound and complete the division of the nerve.

Here is an interesting point in physiology: If one divides the posterior one-half or even three-fourths of the sensory root of the nerve, it is possible to preserve practically the entire sensation to the face and at the same time cure the pain regardless of the branch or branches involved. It was formerly believed that each third of the sensory root carried the fibers and functions of one of the peripheral branches of the nerve, i.e., the lower third of the sensory root functioned for the lower peripheral division, the middle third for the middle branch, and the upper third for the upper branch of the nerve. But that isn't so. After leaving the Gasserian ganglia, the central fibers distribute themselves according to functions and not according to the peripheral divisions of the nerve.

One of the important advantages of the cerebellar operative attack is that in one out of every twenty cases, 5 per cent, a tumor will be in the cerebellopontine angle, (Figure 2) pressing upon the fifth nerve and causing this pain. In another 5 per cent of the cases an aneurysm of the basilar artery will be disclosed, and in nearly all of the remaining cases an artery will be found upon either the under surface or the outer surface of the sensory root. It is the pressure of this artery upon the bare sensory root that causes the tic pain. This explains why the pain appears in the later part of life; it is when the artery hardens from sclerosis. (Figure 3.)

OBSTETRICS FOR THE GENERAL PRACTITIONER*

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The thousands of general practitioners in this country have long borne and must continue to bear a great share of responsibility for the type of obstetrics practiced and for the results obtained in terms of morbidity and mortality. There are roughly two and one-quarter million deliveries in the United States annually, and general practitioners conduct at least seventy-five per cent of the total. The American Board of Obstetrics and Gynecology, in the nine years of its existence, has certificated approximately 800 specialists in these fields, and there is reason to believe that this number represents at least one-half of those who by training and experience and fundamental knowledge can reasonably be called obstetric specialists. Assuming this figure of 800 multiplied by 2, and further assuming that each of these 1600 individuals delivers 150 women annually, this group will care for only 240,000 cases in any twelve-months period, slightly more than one-tenth of all deliveries during that interval. It is then fair to paraphrase: as goes the general practitioner, so goes obstetric practice.

The title of this paper is sufficiently equivocal to justify remarks of considerable latitude, and I am glad to avail myself of this situation over which at the onset I had no control. It is quite obvious that this title may be interpreted as raising the question of the amount of obstetric work which the general practitioner is justified in undertaking, and I have chosen to approach the problem from this angle.

Traditionally the family physician has been the family obstetrician, and especially the older practitioners firmly believe that this situation should not be changed. Up to the turn of the century, and in some sections for many years later, obstetric specialists were almost unknown in this country and the number of hospital deliveries was quite negligible except for charity admissions to teaching institutions, and they were far from numerous. Both situations have changed remarkably in the intervening thirty-seven years. There is now scarcely a community of more than 50,000 population which does not have at least one obstetrician with some special training, and few smaller communities which are not within reach of such a specialist. Moreover, in 1937, approximately 40 per cent of all deliveries occurred in hospitals and the number grows larger each year as the inherent advantages of hospitalization are better appreciated by both physicians and patients.

Because of these changed and changing conditions, the question has inevitably arisen as to

whether the general practitioner should continue to accept full responsibility for all obstetric patients who come to him. In the September, 1938, issue of the *Journal of the Association of American Medical Colleges*, a member of the American Foundation Studies in Government presents "Medical Education as discussed in 'American Medicine,'" and stresses certain comments offered in this monumental study of American medicine based upon statements made by physicians in response to certain questions concerning the present status of medical practice. A former dean of an approved medical school in the Middle West and a member of the Commission on Medical Education is quoted to the effect that "The conduct of abnormal labor and the management of complications are not within the capacity of the general practitioner and never will be." Similar comments are sufficiently numerous to justify the editorial statements that "High maternal death rates are ascribed to insufficient obstetric competence in average practitioners" and " . . . the general practitioner of the present day is no more called upon to have a comprehensive knowledge of obstetrics than he is called upon to be a competent general surgeon." In an address before the Medical Society of New Jersey in April, 1937, Doctor Frederick C. Holden, of New York City, carries the argument still farther by proposing the enactment of laws which would restrict obstetric practice to those who have had special training and who have been certificated by some national body. Adoption of this latter suggestion is obviously impossible at present because of the lack of necessary training facilities, although it may be a goal for the distant future. On the other hand, the earlier comments imply only that the general practitioner voluntarily restrict his obstetric activities to those cases where his training and experience are adequate.

The adoption of such a plan would logically leave the care of the normal childbearing woman in the hands of the general practitioner, but would place upon the obstetric specialist the responsibility for the treatment of the more serious complications of pregnancy and parturition. Leaving tradition and custom out of the discussion, this concept is not inconsistent with the nation-wide program for providing the best available care for maternity patients. Irrespective of his interest in obstetrics and his years of experience in practice, the general practitioner cannot qualify as a specialist, and the conduct of complicated obstetric cases is a specialized task. In many smaller communities certain physicians have gained enviable local reputations in obstetric work, because they have shown special aptitude and enthusiasm for this

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type of practice, but they are not specialists in the modern sense, in spite of the fact that they may be indicated as such in the medical directory. Self-designated specialists are anachronisms; they cannot well continue as a part of our medical economy.

The mere fact that such an individual is the accepted accoucheur in a community means little or nothing. It is quite impossible for any physician to train himself to be an obstetrician; the clinical material available to him is inadequate and he lacks the stimulation of intelligent, impersonal criticism which is so essential to clear thinking and to progressive development of an open-minded skepticism not only of himself but of others. A physician who becomes an obstetrician by the process of gradual transformation from the status of general practitioner is rarely competent when judged by present standards.

In the past there was undoubtedly reasonable justification for the appearance and continuance of self-trained specialists, but the situation has changed with the development of teaching centers devoted in part to providing broad special training. The American Board of Obstetrics and Gynecology demands three years of such work after the intern year in a hospital with sufficient clinical material and supervisory personnel to provide the young physician with every opportunity to become familiar with details of diagnosis and treatment and to develop an adequate basic knowledge. Assuming that our present facilities can turn out 100 well-trained specialists annually and that their geographic distribution is reasonable, it would seem that the demands of the nation for obstetric consultative service would be met as rapidly as the profession could accommodate itself to this suggested and probably advisable change in providing obstetric care.

There are still those who argue that the hospital-trained specialist is deficient in those attributes that can successfully maintain the old and honored patient-physician relationship, but this argument loses much of its validity when brought into the modern perspective. Even a generation ago, medicine had little to offer other than the art of practice together with a few specific remedies; the science of medicine had not yet been developed. In those days it was sufficient for the practitioner to guess at a diagnosis and to offer symptomatic treatment, but accurate diagnosis had to await the appearance of methods of precision, and efficient therapy must depend upon knowledge of the underlying disease. When symptomatic relief alone was the aim of therapy, the kindly, personal touch of the old-time family doctor was invaluable, because it inspired hope based on confidence. Obviously these professional attributes are not to be discouraged, but intelligent patients are constantly demanding the employment of the newer medical procedures with which they are being acquainted by the press and radio.

Much has been spoken and written about the

over-use of laboratory methods to the exclusion of clinical observation, and such criticisms are without doubt frequently justified. The situation represents only a swing of the pendulum induced by the rapid development of precision technics, and there is good evidence that a better balance between the old and the new is appearing. In obstetrics this laboratory tendency is represented by x-ray pelvimetry, blood chemical analysis in the pregnancy toxemias, and similar procedures carried over from other clinical fields. Satisfactory obstetric practice rarely depends upon such refinements, which only infrequently are essential, but rather upon sound clinical judgment, which can be acquired only by intensive experience under critical supervision.

The chief value of the newer specialist training lies in the magnitude of the clinical material to which the incumbent is exposed. The young man who spends three or four years in a specialty clinic compresses into this interval a veritable lifetime of practical experience. Not only does he see a truly enormous number of patients, but they represent such selected material that his acquaintance with major clinical conditions is hardly reproducible in any type of private practice. In my own clinic, the young man who completes the three years of special study contacts about 5,000 obstetric patients, and hears the unusual cases discussed from every angle. To match this experience in private practice it would be necessary for him to treat an average of 167 patients annually for 30 years, and few specialists can hope for a practice so extensive.

The objective of obstetric practice—a sound mother and a healthy child—has not changed, but increasing attention is being directed toward preventable maternal and infant deaths. Several recent studies have shown that roughly two-thirds of our maternal fatalities could be prevented if ideal care could be made available, and it is estimated that perhaps fifty per cent of all stillbirths and neonatal deaths could be avoided under similar conditions. If some change in our concept of obstetric practice can reduce these preventable deaths, it is consistent with the altruistic ideals of the medical profession that it be adopted as soon as practicable. The revision which has been suggested stresses particularly that the future role of the general practitioner involves prevention rather than cure, a movement consistent with the modern trend. Even if it be granted that the family doctor is not adequately equipped by training and experience to handle complicated obstetric cases, he will still remain the guardian of the health of childbearing women and of their unborn children. On the other hand, the special, technical knowledge of the obstetricians will be devoted more largely to the conduct of complicated cases.

As has been frequently emphasized, the chief causes of maternal deaths are infection, toxemia, and hemorrhage, while prematurity and intracranial hemorrhage account for the majority of still-

births and neonatal deaths. All of these conditions are largely preventable by measures now available.

Prenatal supervision is potentially a tremendous factor in the prevention of obstetric catastrophes, and must be made an essential part of routine maternity care. Its full possibilities have not yet been realized since its application is still by no means universal, but isolated experiences in individual practices and clinics leave no doubt about its value. Educational programs and demonstrations are rapidly making the public aware of its advantages, but there is some fear that this developed demand has already outstripped the ability of the profession to supply the service. It is a safe assumption that at least 25 per cent of general practitioners are unable technically to make an acceptable prenatal examination according to the published and accepted minima, which include, in addition to the general physical examination, mensuration of the pelvis and the withdrawal of blood for serologic tests. Very few practitioners possess pelvimeters or know how to measure pelves with any degree of accuracy. It may be advanced that pelvimetry is not essential for evaluation of the obstetric capacity of the pelvis, and I am in complete accord with that view, but at the same time insist that it requires more experience to estimate the size of the pelvis when this instrument of precision is not available. In various states it has been estimated that from 25 to 50 per cent of the practitioners cannot do a venipuncture, and it is obvious that such individuals cannot in themselves take any part in the campaign for the prevention of congenital syphilis, in spite of the fact that elimination of this disease is one of the most significant results of prenatal supervision.

The periodic examination of pregnant women who look and feel quite normal is also inconsistent with the older idea of medicine as only a curative science, and many practitioners find it difficult to adapt themselves to this new and useful practice. One phase of the problem which interferes with its adoption concerns the financial aspects of such attention. The majority of obstetricians base their fees on complete prenatal and delivery attention, a procedure which makes it possible for them to ask for as many prenatal visits as seem necessary without consideration for the cost to the patient. When attempts are made to charge separately for prenatal examinations on the regular "office call" basis, it is clear that many women will hesitate to follow the physician's instructions when they believe that they are quite normal. This relatively simple difficulty has in great measure delayed the adoption of adequate antenatal supervision over the country and can apparently be removed only by instilling certain new concepts into the professional mind. Unless concessions to the orthodox are made in the interests of the prevention of disease, the development of all types of preventive medicine will be retarded and the public will not

receive the care which the profession is in a position to render.

Every obstetric patient should consult her physician as soon as she is reasonably certain that she is pregnant and should return once each month for the first seven months of gestation and then every two weeks until confinement. The first examination should consist in a careful evaluation of her physical resources in terms of the somatic demands of gestation and a search for conditions which might influence her chance for delivering a normal, healthy child. At subsequent visits the progress of the pregnancy is determined and evidence is sought of any abnormal reaction of the organism to the metabolic and physical changes incident to pregnancy. It has been abundantly proven that detailed supervision of this character with prompt attention to the early manifestations of disease justifies the time expended by reducing the possibility of serious parturitional and puerperal complications. Perhaps the most outstanding benefit to be derived from such consistent care is observed in the practical elimination of the more severe late toxemias among patients who are watched carefully; but in many other conditions its value is likewise evident—in the detection and correction of iron-deficiency anemia, in the control of diabetes, in the medical treatment of cardiac disability, and in innumerable other diseases which originate during, or are associated with pregnancy.

Elevation of the blood pressure, the appearance of edema, an unusual gain in weight, and the development of albuminuria all suggest toxemia. If intelligent therapy is offered at the first evidence of a toxic state, it is unusual for the condition to become serious. There is no good evidence that there is an organic toxin operative in these so-called toxic states, but many studies suggest that there is a metabolic imbalance which induces a general hydration of the body tissues. The recommended systems of treatment vary widely in detail, but in general impose rest in bed, together with the institution of procedures aimed at improving elimination and offering sedation. In incipient cases dietary regulation seems to be effective and should be used. There is no good agreement concerning the proper type of diet, but practically all observers consider the reduction in salt intake as of primary importance. There is some difference of opinion concerning the advisability of reducing the fluid ingestion, but the consensus favors a limited intake especially in those individuals with marked edema. The idea of lowering the protein in the diet is thoroughly ingrained in the professional mind although a high-protein diet is more logical, and the experience of several clinics shows that the latter regimen is at least as good and probably better than the former, especially when there is no nitrogen retention.

In the interests of the fetus as well as of the mother, it may be advisable to interrupt the preg-

nancy, usually after the period of fetal viability. In fact, considering the danger of intrauterine fetal death and of permanent kidney damage in the mother, it is doubtful whether it is wise to continue medical treatment of the toxemias for long periods as was formerly advised, unless the condition responds well to such therapy. On the other hand, there can be no doubt that even in the most severe toxemias a few days of intensive medical treatment should precede the surgical interruption of pregnancy. Fine clinical judgment is required to select the proper time for such intervention. Laboratory studies are rarely of any value in making this decision, whereas a competent evaluation of the signs and symptoms is most effective in improving the prognosis. It is in conditions of this character that the specialist may be expected to have better judgment because of his greater familiarity with the disease picture.

Prenatal care may also be expected to reduce fetal wastage to some extent by controlling incipient and chronic disease and by avoiding premature delivery, which is such a frequent result of maternal disease. Prematurity ranks very high as a cause of fetal and neonatal death and in many instances can be prevented. It has been shown that adequate and highly specialized care of the premature infant will double the usual salvage, but such facilities are available only in the largest medical centers. In general practice more can probably be done by attempts to prevent premature birth than by trying to provide proper care for the premature infant.

A second fundamental practical consideration deals with attempts to prevent puerperal infection, which is usually preventable but nevertheless still causes more maternal deaths than any other single condition. Evidence is quite conclusive that child-bed fever is almost invariably a wound infection with pathogenic organisms introduced from without either shortly before, during, or immediately after parturition. Autoinfection, except with the gonococcus, is very rare, although certain anaerobic streptococci may occasionally be the responsible agents. Again, prevention is simpler than cure and involves strict attention to the maintenance of surgical asepsis, so that anything introduced into the birth canal during these danger periods must be sterile. There is no effective means for sterilizing the perineum and vulva, and the technic utilized in their preparation is probably of little importance. On the other hand, the instruments, sponges, and other materials which may of necessity be introduced into the birth canal can be rendered organism-free by some form of heat treatment, although there is the constant risk of contamination at the vulval orifice. Consequently, there is great need for reducing vaginal manipulation to a minimum consistent with proper care, and for avoiding excessive blood loss and lacerations, both of which increase the likelihood of infection. The chief objection to operative delivery revolves around this danger which is not entirely

obviated even by the most elaborate aseptic and antiseptic care.

The third serious maternal hazard involves the various obstetric hemorrhages. Placenta previa is apparently unavoidable but the mortality risk can be minimized by an intelligent choice between the available methods of treatment. Excellent clinical judgment is needed to determine the proper therapeutic procedure, which varies considerably with the extent of the previa, the amount of bleeding, the surroundings, and the operative ability of the attendant. There is little justification for subjecting all patients with placenta previa to abdominal delivery when many of those with the marginal type can be treated satisfactorily by simple rupture of the membranes or by other vaginal maneuvers. It should be recognized that placenta previa is a less frequent factor in the production of antepartum bleeding than is premature separation of the normally implanted placenta. Clinical differentiation of the two conditions can be made only on vaginal exploration, which in itself increases the risk of cesarean section if that method of delivery is chosen.

Ablatio placentae is often associated with the toxemia of late pregnancy and can consequently be prevented to some extent by avoiding the latter condition through adequate prenatal supervision. In the vast majority of cases the separation is of small extent, and conservative treatment is attended by excellent results. Only in the rare instances of complete detachment is abdominal delivery indicated and even then expert opinion is not unanimous.

Severe postpartum hemorrhage can largely be avoided by proper conduct of the third stage of labor. It is now well recognized that the stage of placental separation proceeds more normally when manual manipulation of the uterus is omitted and normal contractions are depended upon to effect separation of the after-birth. The use of oxytocic drugs to stimulate uterine muscular activity during the third stage has little to commend it and should be reserved for those cases where special indications prevail.

In any profuse obstetric hemorrhage, treatment of the patient's general condition is probably as important as are local attempts to control the blood loss. These patients die from shock, a condition which should be combated by modern therapeutic procedures. The patient should, if at all possible, be hospitalized so that the life-preserving value of intravenous fluids and transfusions may be utilized. Failure to appreciate this necessity undoubtedly results in many preventable deaths.

The most serious practical obstetric problem is one of commission rather than omission—the growing use of unwarranted cesarean sections. An operative procedure which carries a risk approximately ten times that of vaginal delivery should obviously be carried out only for good and sufficient indications, and yet many abdominal deliveries are performed because of breech presenta-

tions and occiput posterior positions, because the patient is a primigravida under 16 years or over 35 years of age, because it is desired to effect sterilization, or even because the patient requests this type of delivery. It should be obvious that such conditions in themselves are not indications but rather represent excuses under which the operator gives vent to his surgical desires rather than to considered obstetric judgment. It is probably not an exaggeration to say that there would be a very appreciable drop in the national maternal mortality rate if the general practitioner and his usual consultant, the general surgeon, could be made to appreciate the contraindications to abdominal delivery so well recognized by those trained in obstetrics. It must be recognized that abdominal delivery is not a safe emergency operation in cases of delayed delivery, that it is not good treatment for the convulsive toxemias of late pregnancy, and that many cases of placenta previa can be treated more safely from below. On the positive side, it must be stressed again and again that elective cesarean section is the safest and that every hour of labor and every vaginal examination increases the risk. The decision to operate on election demands the type of judgment which can be expected only in the trained obstetrician. Every hospital admitting obstetric patients should enforce a regulation that no abdominal delivery should be permitted unless an obstetric consultant agrees to the advisability of the procedure.

It has been my experience that the large majority of cesarean sections performed by general practitioners and general surgeons are not only unindicated but actually contraindicated. When hospital records contain any semblance of an indication it is usually "contracted pelvis," and yet the data show that the operation was done only after many hours or even days of labor. Such a statement of indication carries no conviction because it is obvious that the diagnosis of contracted pelvis was not even considered until the patient had failed to deliver in the expected time. Adequate prenatal supervision should have detected the pelvic condition before the onset of labor and so have permitted the performance of an elective operation if there were evidence of cephalo-pelvic disproportion. Later pelvic mensuration shows that very few of these patients have pelvic contraction, and yet these women have been subjected to a considerable risk of death, when a better knowledge of the physiology of parturition and of other available obstetric procedures would have rendered their deliveries much safer.

If I were to tell you what you already know and to expound philosophies with which you are in complete accord, this paper would have no purpose. Consequently, I have attempted to think aloud on some of the problems involved in providing adequate, and that means better, obstetric care for the mass of women in this country, so that the lives of mothers and babies may be saved. My

main thesis is that the general practitioner without special training is not able at the present time to provide that high type of care to those of his patients who present the more serious complications of pregnancy or delivery. This should be looked upon not as a reflection upon the honesty, the integrity, or the ability of the great mass of physicians, but rather upon the state of medical education which makes it impossible to give every graduate the detailed knowledge which would fit him for this specialized type of work. The clinical material available throughout the country is insufficient to make an obstetric specialist of every physician who must do obstetrics in the course of his practice, but if it were utilized to the utmost it would provide each graduate during his years in medical school and during his internship with enough experience to enable him to give adequate care to the average obstetric patient. He could be trained to give the preventive care which is so essential a part of modern obstetrics and to manage the simpler complications.

Doctor F. C. Holden, who has already been quoted, suggests that every young physician who plans to practice obstetrics be compelled to have a minimum of six months of obstetric training in an approved hospital following his general rotational internship. Such an individual would be fully equipped to give the type of preventive care which has been outlined and might, moreover, be expected to realize his limitations to the extent that he would seek special consultation when confronted by truly major difficulties.

Those who are interested in these problems from the stand-point of medical education realize the deficiencies of the present situation and likewise appreciate the impossibility of making every graduate an obstetric specialist. If it be admitted that this is an utter impossibility, the practical solution of the problem does not lie in that direction. Neither does it lie in condoning the present situation and in making no attempts to change the direction of medical practice. Doctor E. F. Daily, Director of the Maternal and Child Health Division of the Children's Bureau, has recently stated: "In order to provide competent medical care for a larger proportion of maternity patients, either there must be greater opportunity for obstetric training before graduation and during internship, or the practice of obstetrics must gradually be limited to those men who have had opportunities for special training in obstetrics subsequent to their ordinary internship."

It is my contention that the general practitioner is the logical individual to conduct the routine of obstetric practice but that he should be taught to realize his limitations of training and on that basis voluntarily to limit his obstetric work to its more preventive aspects. If such voluntary limitation is not forthcoming within a reasonable time, it may be necessary to seek statutory regulations as proposed by Doctor Holden. It is interesting and significant that the younger graduates

appreciate their inadequacies in this direction and express their recognized need for further instruction and experience, but are utterly unable to obtain this additional training because there are no more than 150 resident and assistant resident appointments annually in hospitals equipped to give this special training.

Medicine is at a cross road, and obstetrics as a part of medicine is in the same situation. We cannot go back; we must go ahead, and the profession should determine the direction of that forward progress. The people of the country are interested in both the quantity and the quality of medical care, and are concerning themselves with the high maternal and infant mortalities which we must admit. Practically every survey which has been conducted has emphasized that the average obstetric patient does not now receive care which is adequate when judged by modern standards.

The majority of pregnant women do not have the advantage of complete prenatal supervision, do not have complete aseptic attention during labor, and do not profit by expert consultation when overtaken by the more serious complications of pregnancy and parturition. It would seem that these deficiencies might be overcome by relatively simple changes in attitude and the utilization of facilities already generally available. In such a changed situation, the practitioner's function would be largely to prevent the development of the serious complications of pregnancy and the puerperium by the application of the principles of prenatal care and of asepsis. He should be able to recognize the signs of impending danger and to appreciate serious situations as soon as they arise, but he should turn over the major therapeutic problems to the specialist whose training and experience better qualify him for the task.

THE IMPERFECTLY DESCENDED TESTICLE*

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Little is known with certainty concerning the forces, whether hormonal or anatomical in action, which influence the normal or abnormal descent of the testicle. The long migration of the testicle from the lumbar region to the bottom of the scrotum gives abundant opportunity for local factors, whether developmental, post inflammatory or mechanical, to interfere with its normal descent. The emphasis once placed upon abnormal development of the process vaginalis or the gubernaculum testis as a cause of non-descent of the testicle is probably unjustified. Bailey¹ concludes it would be difficult for the gubernaculum to exert traction upon the normally descending testicle or to fail of this function when faulty descent occurs, as in the new born child the gubernaculum is attached at its lower end to the coverings of the testicle and not to the bottom of the scrotum. Likewise, the multiple tailed gubernaculum, as proposed by Lockwood as a cause of the maldescent in the ectopic testicle, is probably "but a pretty theory to explain a surgical conundrum,"¹ and it needs further investigation before final acceptance.

Recently it has been advanced that the primary cause of failure of normal descent of the testicle may be the lack of adequate hormone stimulation to the testicle. Much of the information concerning such hormonal action available at present is confusing and conflicting. Hess² and his co-

workers found the presence of a significant amount of gonadotropic hormone in the urine of but five of thirteen boys with nondescended testicles, indicating the gonadal mechanism was functioning normally in 63 per cent of his series of cases.

It is probably true that in the majority of instances of nondescent of the testicle the primary difficulty is in the "passage and not the passenger."¹ If carefully searched for at the time of operation, most often some form of mechanical obstruction due to an anatomical factor will be found present which could prevent the normal descent of the testicle. The obstruction may be due to a shortness of the structures to which the cord and testicle are attached; to adhesions between the coverings of the cord or testicle to a coexistent hernial sac; to a small or absent inguinal ring; to abnormal pads of fat occupying the scrotal sack, or to fibrous bands about the external ring.

The nondescended testicle itself seldom gives rise to symptoms during childhood. Frequently the deformity is discovered during an examination for a hernia or an associated urogenital malformation as exstrophy of the bladder, epispadias or hypospadias. Nondescent of the testicle may be unilateral or bilateral, and the testicle may be palpable in or about the inguinal canal or it may be in the pelvis. It is usually smaller and softer to the touch than is the normally placed testicle. The tunica vaginalis and the epididymis are usually abnormally developed. The scrotum is malformed and when but one testicle is improperly descended, the median raphe of the scrotum may be more nearly horizontal than vertical. The presence of a well developed scrotum suggests that a

* Presented before the Section on Surgery of the Indiana State Medical Association at Indianapolis, October 5, 1938.

¹ Bailey, Hamilton: *Diseases of the Testicle*. H. K. Lewis & Co., Ltd., London, 1936.

² Hess, J. H.; Kunstadter, R. H.; and Saphir, Wm.: Urinary Excretion of Gonadotropic hormone in Cryptorchidism. *J. A. M. A.* 108, pp. 325-354. 1937.

true nondescended testicle is not present, although both testicles are not in the scrotum at the time of the examination.

In the boy before puberty the imperfectly descended testicle, regardless of its position or size, presents the histological characteristics of the normal testicle for a child of that age. With the advent of puberty, however, the further development of the imperfectly descended testicle differs greatly from that of the testicle normally situated in the scrotum. The nondescended testicle remains small and soft and it but exceptionally produces spermatozoa. Histologically the generative portion of the epithelium is not fully developed. The seminiferous tubules become small and are more widely separated than in the normal. Lydig cells—that is, the interstitial cells between the tubules—are greatly over-developed. Yet throughout all these retrogressive changes which become evident in the nondescended testicle with the passage from boyhood to manhood, for a varying period of time, the tubular framework of the misplaced organ remains intact. This is a most important observation when considering the possibility of regeneration of the testicle following orchiopexy. The important question then is, are these degenerative changes in the misplaced testicle and the failure of the development of the spermatogenic function primarily developmental in origin, or are they acquired as a result of the malposition of the testicle? While it must not be overlooked that this disease is a developmental one and that other local malformations and familial anatomical deficiencies frequently coexist with the misplaced testicle, the present trend of opinion is that these changes in the nondescended testicle are acquired, and that they are the result of the temperature of the testicle in its abnormal location. The scrotal temperature of the adult human is 1.5 degrees F. to 2.2 degrees F. lower than is that in the peritoneal cavity and it is one degree to two degrees F. lower than is the axillary temperature. The lack of the normal development after puberty of the misplaced testicle is generally considered the result of the increase in the temperature at its abnormal location above that of the scrotum.

It has long been known that spermatogenic activity in the adult male is intimately related to variations in temperature. It remained, however, for Carl Moore³ to show experimentally the specific effects of changes in temperature upon the development of spermatozoa in an otherwise normal testicle, by interfering with the heat regulating mechanism of the scrotum. Moore insulated the scrotum of a ram and the testicles soon became smaller and aspermia developed. When the insulating material was removed, the testicles returned to their normal size and regained their normal spermatogenic function. Wangenstein⁴ later showed that the

testicle of an adult dog, when transplanted into the abdomen for from four to five weeks, and then replaced in the scrotum, behaved in an exactly similar manner. But he found that if the transplanted testicle remained in the abdomen for four months or longer before being replaced in the scrotum, this power of regeneration and the return of the spermatogenic function was lost. Griffin⁵ also noted that when the testicle of a puppy was transplanted into the abdomen, but little or no change took place in this testicle. These experimental findings in the young and in the adult dog correspond closely to the histological and clinical findings observed in arrested testicular descent in the boy and in the adult man, and if these and other similar observations⁶ and their application to the problems of nondescent of the testicle in the human are accurate, they indicate not only the cause for the lack of full development of the nondescended testicle after puberty, but constitute convincing argument for correction of the deformity before adolescence has occurred.

Young,⁷ after stressing the need for conservatism in the operative treatment of this anomaly, enumerates the following reasons for the need of surgical correction of the deformity: first, the co-existence of an inguinal hernia; second, torsion of the spermatic cord; third, injury to and inflammation of the misplaced testicle; fourth, malignant disease of the testicle; fifth, the lack of development of sex characteristics; and sixth, atrophy of the testicle with sterility. To these could be added a painful, tender testicle to touch, a discomfort often being caused by the mere prolonged contact of the clothing, and a vague nervous disorder centralized about an undue sensitiveness over their malformation. These latter patients become neurotic, they lag in their ability to learn and to concentrate, and become reclusive in their habits, and despondent. The writer has observed one patient 18 years of age with a unilateral deformity in whom these symptoms were marked.

A nondescended testicle may be strictly confined to its abnormal location in the pelvis or in the inguinal canal. In other instances which are relatively more frequent in a boy under ten years of age, either spontaneously or following manipulation, the testicle may pass through the external inguinal ring. The distinction between these two very different conditions should be well in mind when outlining treatment and in reporting results following the different methods of treatment employed. In the former, the doctrine of late descent is never justified, and in the latter, the so-called migrating testicle, operation should not be undertaken until all other means have failed.

⁵ Griffiths, J.: *Lancet*, 1895, T, 795.

⁶ Nixon, Norman: The Undescended Testicle. *Am. J. Dis. Children* 55: 1037. May, 1938. (Excellent bibliography.)

⁷ Young, H. H.: Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases. Williams & Wilkins Co., 1938.

³ Moore, C. R., and Osland, R.: Experimental Studies on Sheep Testis. *Anat. Rec.* 26:343. 1923.

⁴ Wangenstein, O. H.: *Arch. Surg.* 1927, XIV, 663.

A child six or seven years of age with a non-descended testicle of any type should be treated by the intramuscular injection of a gonadotropic substance. Such hormonal therapy should not be undertaken prior to this age because of the possible production of premature maturity in the younger boys. When this drug is administered at any age close observation for this effect should be made. However, in each case adequately treated by endocrine therapy, some of the following changes should be noted. There will be an appreciable increase in the size of the testicle and of the scrotum in most patients. In about one-half of the cases there will be noted some enlargement of the penis, and in a lesser number there will be an appearance of pubic hair. Should any of these changes become unduly evident during treatment, the dosage should be lessened or the treatment should be stopped, when a return to normal will occur. Many observers conclude the larger doses of gonadotropic substances have a deleterious effect upon the spermatogenetic function of the normally placed testicle.

The present tendency is to administer the drug more frequently. Most often the injection is now given from four to five times a week to once each day. The average dose is from 100 to 200 rat units. The duration of the treatment is unsettled. Some give it for two months, then follow with a two or three-months rest period, when the treatment is resumed. Others prefer a continuous administration for four or five months. If no evidence of testicular descent is noted after thirty or forty injections, probably further treatment will be of little avail. The findings of a gonadotropic hormone in the urine, as an indication of the probable success of the treatment (Hess, et al.) may be ignored as this method of treatment at present should be tried in all cases when demonstrable anatomical obstruction is not present.

The results of the treatment, as reported in the literature, are not uniform. They range from the record of success in but an occasional case to from 80 to 90 per cent of the cases so treated. Probably most confusion results from the variable position of the testicle in the migratory type of the deformity. Successful results with early descent of the testicle may be expected to follow endocrine therapy in those instances where the testicle can be made to pass through the external inguinal ring. Success is much less certain in the cases where the testicle is fixed and its movement is limited to the inguinal canal and here failure following such treatment frequently will be experienced. In a recent report⁸ of eighteen cases treated by hormonal therapy, of the four cases successfully treated, the authors stated three were of the type which commonly descend at puberty.

The writer has had three instances of migratory

type of deformity, one bilateral, in which patients the testicles permanently assumed their normal position in the scrotum within two months of the institution of the hormonal treatment. However, in our series there has been no instance where a nondescended testicle, with movement limited to the inguinal canal, and with rudimentary or malformed scrotum, has spontaneously descended into the scrotum with or without the employment of endocrine therapy. When antuitrin S has been used by the writer, the criticism that insufficient treatment was given may be just. This drug in oil was used, 200 rat units were injected two times a week until a total of 3,000 to 4,000 units were given, when the patient was allowed a rest period of two months, when the course of treatment was repeated. Many of the patients failed to report regularly for their treatment. At present there are seven patients, ranging from six to ten years of age, being given this treatment. Some are being given three injections a week and others four injections a week. In most instances the movement of the testicle is limited to the inguinal canal. Late testicular descent has occurred in one of these children. The hormonal treatment of this deformity has, however, a very great virtue in those cases where it fails to result in a descent of the testicle. It irrevocably answers in the negative the question of the advisability of longer waiting for spontaneous descent. If this plan of treatment is instituted at the age suggested, there should be no excuse for further delaying operation until the retrogressive changes of puberty have occurred. No child so treated, in whom the testicle has not descended into the scrotum, should remain unoperated until after puberty.

By operation the improperly descended testicle may be removed, or it may be replaced in the abdomen, or it may be transplanted into the scrotum.

Removal of the imperfectly descended testicle will be indicated in most instances of torsion of the cord, when excessive atrophy of the testicle has occurred in the adult, and its removal is imperative when malignant disease of the testicle is suspected. Otherwise orchidectomy is not indicated in maldescent of the testicle.

Replacement of the testicle, which has become lodged in the inguinal canal, into the abdomen will seldom be indicated or necessary. In primary abdominal nondescent, or in the case of inguinal nondescent, when sufficient lengthening of the cord structures to permit placing the testicle well into the scrotum at a single operation is hazardous because of an interference with the blood supply to the testicle, recourse may be had to orchiopexy by stages. Those who have followed this plan of management in the rare case where necessary, assert it eliminates the necessity for orchiocelectomy. Two or three operations may be done, but when this plan of management is decided upon, only at the final operation, when the testicle is

⁸ Thompson, W. O.; Bevan, A. D.; Heckel, N. J.; McCarthy, E. R.; and Thompson, P. K.: *Endocrinology*, March, 1937.

well in the scrotum, should the inguinal canal be reconstructed.

Orchiopexy should be done in the boy with a nondescended testicle when he is seven to ten years of age, but only after there have been no appreciable results from adequate endocrine therapy. The writer considers unilateral nondescent of the testicle a clinical problem demanding attention regardless of the position or condition of the opposite testicle. When endocrine therapy does not result in descent of the misplaced organ well into the scrotum, measures to conserve the testicle by surgical scrotal replacement are indicated. Some forty operations for this disease have been described. It would be of little profit to review all of these. However, most variations in the operative procedures proposed have dealt with the manner in which the testicle is anchored in the scrotum. These operations may be grouped into four general classes: first, those in which the testicle is anchored to the bottom of the scrotum with or without a tightening of the external inguinal ring, and with or without the application of some means of mechanical traction from below; second, those in which a trans-scrotal transplantation is performed; third, those where there is splinting of the testicle to the bottom of the scrotum by means of a wire splint fixed to the pubic bone; and fourth, the testicle is held down by an attachment of the testicle to the fascia lata of the thigh. Any one of these operations, in the hands of a surgeon thoroughly acquainted with the particular operation being used, will give satisfactory results so long as the basic principles of a successful orchiopexy are understood and strictly adhered to by the operator. The lack of an appreciation of these principles will result in disaster in a large percentage of cases regardless of the method of operation chosen. An unsatisfactory orchiopexy is more often the result of a lack of knowledge of the problems involved than it is of insufficient surgical skill. The operation should be performed before puberty. Thus the testicle will be given a better chance for normal growth after replacement. Also it is more difficult adequately to free the cord structures when the patient is fourteen or fifteen years of age. Bailey¹ states that of ten cases operated when the patient is fifteen years of age or older, "seven are likely to be failures because of the added difficulty in freeing the cord." When the testicle lies in the abdomen it can be more easily placed in the scrotum when the patient is seven or eight years of age. When a hernia, in a boy of any age before puberty, demands operation, the associated nondescended testicle should be placed in the scrotum at the same time, preferably by the Ombredanne trans-scrotal method. In bilateral deformity, but one side should be operated upon at a time. There should be an interval of three or four months between operations. The higher testicle should be operated upon first. The vascular supply of the testicles should not be disturbed or necrosis or atrophy will certainly occur.

In discussing this operation, too much emphasis has been placed upon the methods of scrotal retention of the testicle and not enough emphasis upon the details of the dissection necessary adequately to free the cord. Separation of the cord structures from the surrounding tissues and completely freeing them from the fascial bands demand a delicate, painstaking dissection and at best will require from one-half to one hour's time. It is not an operation to be undertaken when the operator is limited in time.

There will seldom be any difficulty in placing the maldescended ectopic testicle in the scrotum as here the cord structures are usually abundantly long. In the other types of the imperfectly descended testicle the spermatic vessels will interfere most often with the free descent of the testicle at operation. When the vessels are short they must be freed from the retro-peritoneal tissues above the internal inguinal ring. The conjoined tendon may need to be divided or the internal oblique muscle may be buttonholed for better access to these vessels when the difficulty arises. In the dissection of the vessels of the cord they must be practically denuded of all fascial connections. Every care must be taken in this freeing of the vessels as any appreciable injury to the spermatic artery will most certainly result in a later atrophy of the testicle if not in an immediate necrosis of the organ.

The vas seldom will be a real difficulty in the lengthening of the cord. It should be freed from the vessels of the cord well above the point of their normal separation at the internal inguinal ring. Occasionally it may be necessary to divide the deep epigastric artery. Division of the artery of the vas likewise will most often be followed by post-operative atrophy of the testicle.

The testicle must be freed from the peritoneal sack of the hernia or potential hernia, one of which is practically always present. The testicle is attached in most instances to the outpouching of the peritoneum rather than to the tunica vaginalis in this deformity, and the hernial sack between the testicle and the peritoneal cavity must be removed. Overlooking this abnormal attachment of the testicle has contributed to the post-operative retraction of the testicle in many instances. An operative result is not satisfactory when the testicle finally rests high in the scrotum near the external inguinal ring.

CONCLUSIONS

In conclusion, the nondescended testicle should be operated before puberty, preferably when the patient is from seven to ten years of age.

Endocrine therapy should be administered to all cases with nondescended testicles when the patient is six or seven years of age. When hormonal therapy fails, orchiopexy should be performed. In such instances the doctrine of delayed descent should not be followed.

The success of an orchiopexy will depend more upon the age at which the operation is performed and care shown in the dissection and freeing of the cord structures than upon any particular method of testicular anchorage into the scrotum.

At present the Kietley-Torek operation where the testicle is stitched to the fascia lata of the inner side of the thigh is most often performed.

DISCUSSION

W. P. MORTON, M.D. (Indianapolis): This discussion consists of a review by Dr. Mertz and myself of eighty-nine case histories of undescended testicle seen at the University Hospitals over a period of twenty-one years prior to July 1, 1937. A letter to the last known address of each succeeded in bringing in twenty-nine of them during the past summer for a final inspection. The different types of treatment are recorded, and to some extent opportunity is afforded for a comparison of the methods used and the results obtained. Hard and fast conclusions cannot be drawn because there is no way of knowing the final results obtained in the sixty cases who failed to respond for final inspection. Our information on these sixty cases is taken from the progress notes on the chart.

The right side was involved thirty-seven times, the left side twenty-seven times, and the condition was bilateral twenty-five times, making a total of 114 undescended testicles. The testicle was in the canal or at the external ring in 65 per cent of the cases, and in the abdomen in 35 per cent of the cases. History of injury was recorded in five, and pain was complained of by twenty-two. A truss had been worn for the accompanying hernia in sixteen cases. Familial anomalies were reported in three cases, associated anomalies in eight cases, and in fifteen there were stigmata of degeneration. The youngest age was two months, and the oldest fifty-eight years, making an average of fourteen years and four months for the entire group, but if we exclude the first group of nineteen cases who had herniotomy and an orchidectomy, the average becomes ten and one-half years.

The average of the nineteen cases that had an orchidectomy was twenty-eight years. Knowing the increased incidence of malignancy in undescended testicles, it would be most likely to appear in this older group. In the fifty-eight-year-old man, the pathological report stated "suspicious of malignancy." One case was reported as a myxomatous testicle, one a cystic degeneration, one a strangulated necrotic testicle, and the remainder atrophy of the testicle. Only three of this group reported for final inspection, and all were well, with no unusual findings.

Twelve cases who averaged five years in age received no treatment for such reasons as the following: (1) In for some other illness; (2) advised to return when older; (3) recommendations for treatment not accepted. Three of these cases

responded for inspection, and in two of them the testicle had descended into the scrotum and was of normal size, which proves that these testicles frequently come down in the earlier years of life without treatment.

Endocrine therapy alone was prescribed for eight cases, seven of which were bilateral. Their average was ten and one-half years. Four of the bilateral cases returned for inspection. Two of these testicles were of normal size and in the scrotum, two were in the canals, and four were still in the abdomen. In three additional boys aged two, eleven, and fifteen, endocrine therapy failed and was followed by surgery. Immediate results on the chart were reported good in two. Only one boy in this group came in for final inspection and he had a normal sized testicle in the scrotum. In two other cases, aged ten and fifteen, endocrine therapy was given following orchiopexy, in which the testicles were sutured to a rubber band fastened to the thigh. Good immediate results were reported in both. Final inspection found one testicle of half size in the scrotum, and in the other, the testicle could not be found.

In two cases a Torek type of operation was done. One of these came in for final inspection and had a testicle about half the size of its normal mate in the scrotum.

In two cases, age eight and twelve, of bilateral undescended testicle, that were crossed in the scrotum through the septum according to Ombredanne's method, as a means of holding them down, both reported in. One testicle was not palpated. Of the three palpable in the scrotum, two were normal in size and one was half size or larger.

In twelve cases, averaging ten and one-half years, the testicle was sutured to either the scrotum or its septum. Notes as to immediate results were found in five, and all were good. Our call brought in but one of these boys who had a good result.

In fifteen cases, four of which were bilateral, the average was ten years. In this group the only thing that was done to hold the testicle down was the tightening of the ring above. The charts reported good immediate results in ten, and poor results in two. Our inspection found ten testicles in the scrotum and one absent. Of the ten, four were of normal size, three of half normal size or better, and four were atrophied.

In the remaining fourteen cases, three of which were bilateral, the average age was nine years. In this group some form of indirect attachment by means of a silk worm suture from the testicle through the scrotum to the thigh was used. Good immediate results were reported on the charts of nine cases. In our final inspection of the five cases which reported in, each testicle was found to be atrophied.

It was noted throughout the records that in several cases the testicles could not be made to reach the scrotum on account of short blood vessels. Accordingly these were cut, only the vas

being left intact. Invariably later inspection of such cases showed that the testicle had atrophied.

Another observation in this review was that later inspection will not consistently find the good results which were apparent soon after operation.

I would like to mention one case for the lesson taught. This was a fifteen-year-old boy who was operated at the proper time. One testicle had been removed and the other was in the scrotum but atrophied, the short vessels of the cord having been severed. This boy had a feminine voice, was exceedingly fat through hips and thighs and breasts. There was but scanty suprapubic hair, the penis was small and there were no erections at any time. Saving of either of these testicles would have changed this boy's entire life.

A brief summary of the twenty-nine cases in-

spected follows: Three testicles were in the canal, twenty-two testicles were found in the scrotum, thirteen were either atrophied beyond recognition or were in the abdomen. Of the twenty-two in the scrotum, fifteen were of normal size, and seven of half size or larger. Three were tender and three were migratory. In all but two or three cases a good spacious scrotum capable of accommodating a testicle was present. Abdominal palpation failed to expose a kidney tumor in any of them. The urinalysis in all was essentially negative. Rectal examination of the prostate in all was negative to palpation. Smear of the expressed prostatic fluid, when any was obtained, was negative with one exception, and in this one, an adult, there was a pus cell count of 50 to 100 cells per high power field.

DIAGNOSIS AND TREATMENT OF SOME OF THE COMMON POISONS

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The diagnosis of poisoning is many times easy, sometimes difficult, and occasionally impossible with the facilities at our disposal. A proper diagnosis is of utmost importance so that appropriate treatment may be instituted. According to Zangger,¹ 80 per cent of all cases of poisoning are not diagnosed as poisonings in medical practice. This figure, I believe, is too high for American physicians. There is room, however, for great improvement in our percentage of accurate diagnoses.

Why is it impossible to make a diagnosis in every case? First, because there are too many new drugs and chemicals introduced each year to our long and overburdened list of therapeutic measures. And, because of lack of time and training to study the pharmacological and therapeutical action of these drugs, it is impossible for us to acquaint ourselves with their possible toxic action. However, knowing the chemical composition of some of the members of a certain group, it is possible to prophesy what the physiological action probably will be for new compounds of that group. From the study of barbital (diethylbarbituric acid) we could tell with reasonable certainty how to treat the toxic action of the new compounds formed upon the barbituric base.

The Department of Foods and Drugs of the United States should examine every drug before it is admitted to the market, giving it a serial number and assuring the physician that the product is non-toxic and is satisfactory for the therapeutic use for which it is intended. There being no such law at present, physicians should urge the passage of a law or regulation, giving either

the Federal Trade Commission or the Department of Foods and Drugs jurisdiction over drugs before they are placed upon the market.

The new Senate Bill 1077, passed March 21, 1938, which gives the Federal Trade Commission jurisdiction over the advertising of foods, drugs, diagnostic and therapeutic devices, and cosmetics, is a step in the right direction.² It does not, however, prevent the public from taking poisonous drugs such as the elixir of sulfanilamide which recently caused the deaths of more than eighty people. The Department of Foods and Drugs now has splendid laboratories located in many large cities of the United States. These laboratories through their inspectors could maintain a close check on all new products introduced and, under such a proposed law, would protect both the physician and the public. As physicians we should urge the standardization, by name and strength, of the hypophyseal, ovarian, and anterior pituitary-like hormones which now have a dozen different names for the same preparation and are most confusing to the practicing physician.

Second, the task of diagnosis is made difficult because of the paucity of knowledge of poisons among doctors. This lack of knowledge regarding poisons is in part the fault of medical colleges which fail to stress the teaching of materia medica and toxicology. In arriving at a diagnosis of poisoning, a careful history is a prerequisite as in the diagnosis of disease. A history may be given which is entirely misleading. Several years ago another physician asked me to see, in consultation, a case of alcoholism. The wife of the patient told the physician that her husband had been drinking continuously for several weeks. After a number

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¹ Zangger, H.: *Diagnostische und therapeutische Irrtümer und deren Verhütung*. Leipzig, 1924.

² See Public No. 447 and No. 717, 75th Congress.

of visits to the patient and upon finding that he was not improving, the physician had him removed to a hospital where he could control the amount of alcohol to be given. I saw the patient the morning following his admittance to the hospital. The peculiar copper color of the skin, the hyperkeratosis of the palms of the hands and the soles of the feet, the ability to walk only a few steps, and the garlic-like odor of his breath led me to make a diagnosis of arsenical poisoning. Examination of the urine and stool confirmed the diagnosis, as arsenic was found. I kept the patient under observation for several days in anticipation that his wife might bring him more arsenic in liquor. In the meanwhile investigation of the wife disclosed that she had been widowed five times and had collected insurance upon each husband. The bodies of thirteen of her relatives who had died recently were exhumed. Arsenic was found in twelve of the bodies. The wife was indicted, tried, convicted, and given a life sentence. A well taken history, however, gives us a starting point in making a diagnosis.

A suspicion of an acute poisoning should be entertained if any individual who had been previously in good health suddenly becomes ill with symptoms rapidly increasing in severity. This suspicion always increases if the symptoms appeared a short time after partaking of food, drink, or medicine. If the symptoms agree with those of a group of poisons and can be differentiated from a disease, our suspicion becomes firmly fixed. However, it must be kept in mind that certain diseases closely simulate certain poisons. The irritant poisons may be simulated by gastro-enteritis, gastric and intestinal ulcers, acute indigestion, appendicitis, intestinal obstruction, and peritonitis. Narcotic poisoning may be simulated by epilepsy, apoplexy, cerebral hemorrhage, certain heart diseases, inflammation of the cerebral spinal system, uremia, etc. In acute poisoning a careful examination will many times enable a physician to make an immediate accurate diagnosis. The color of the face, if of a deep pink or red, would lead one to suspect the presence of carbon monoxide or cyanide. Evidence of corrosion on the lips, tongue, mouth, and throat would lead one to suspect that a corrosive poison had been taken. The odor of the breath will oftentimes give important clues, showing that cyanide, phenols, alcohol, chloroform, and other odoriferous substances have been taken.

Examination of the vomitus will often reveal important evidence. It will sometimes show whole pills, tablets, parts of powder, crystalline substances, and the odor will reveal substances such

as nitro-benzine, cyanide, lysol, phenol; the color will indicate whether Paris-green or Rough-on-Rats has been taken. The vomitus, urine, and feces should always be saved in a suspected poisoning for a chemical examination as the case may be of such character as to be presented before a jury. Examination of the urine² will frequently aid in the diagnosis. A few urinary findings are given in Table 1:

TABLE 1

1. Reaction very acid.	Mineral acids, acid metallic salts.
2. Reaction strongly alkaline.	Corrosive alkali, sodium carbonate, salts of organic acids (except oxalic acid).
3. Violet odor.	Turpentine and other ethereal oils.
4. Garlic odor.	Tellurium or bismuth preparations containing tellurium.
5. Odor of ammonia.	Catarrh of the bladder poisoning through strong bases.
6. Yellow to deep red.	Picrates, picric acid, selenium, pyridium, acriflavin.
7. Red in color after addition of sodium hydroxide (to be free of blood pigments)	Phenolphthalein, senna leaves, cascara sagrada, hematoxylin, fuchsin, pyramidon and antipyrine.
8. Port wine color through hematomorphyrine.	Sulphonal, trional, chronic lead, tetronal.
9. Urine contains conjugated sulphates.	Phenol, cresol, lysol, resorcin, creosote, guaiacol, aniline, paramidophenol, acetanilid, phenacetine.
10. Urine contains leucin and tyrosin.	Phosphorus, acute yellow atrophy of liver, pellagra.
11. Small drop of urine causing tetanus in frog or small mouse.	Strychnine.
12. A small drop of urine in cat's eye causing dilatation of pupil.	Atropine, hyoscyamine, scopolamine, cocaine, tropocaine.

When suspicion of an acute case of poisoning has been confirmed, one should look around for sources of that poisoning. A glass may have been left on a dresser containing remnants of poison, tablets, pills, or powders, which may give one a clue as to what had been taken. Smell of any suspected substance with care; taste cautiously of a very minute particle of the suspected substance.

The only way to be certain of the diagnosis is to have a chemical examination of the vomitus, medicine, or food. For most of the poisons this would take considerable time. In the case of arsenic or mercury we have the quick and reliable Reinsch test.

The Reinsch test is simple and can be run in any physician's office where gas is available. The test is performed by boiling a sample of the

² Kobert, R.: *Kompendium der toxiologie*, 1912-34.

vomitus, urine, stool, or suspected food in a beaker or evaporating dish with a strip of copper foil, $1\frac{1}{4}$ inches long by $\frac{1}{8}$ inches wide, and 25 cc. of chemically pure hydrochloric acid. If the material is solid, water must be added to liquefy the specimen under examination. In the case of urine, at least 500 cc. must be evaporated down to 75 cc.; usually about one ounce of solid material is sufficient. After boiling, the supernatant liquid is decanted, the foil washed with water, alcohol, and ether and placed in the long end of a prepared small glass tube as shown in the illustration:

This glass tube is made from a piece of tubing $\frac{3}{8}$ by 6 inches long. Capillary constriction is drawn so that the long portion of the tube is $3\frac{1}{2}$ inches, the capillary about $\frac{3}{4}$ of an inch in length, and the short end of the tube is $1\frac{1}{2}$ to 2 inches. The copper foil is placed in the long arm of the tube, and the capillary refrigerated by a strip of filter paper dipped in cold water. The finger tip is held over the opening in the long portion of the tube and heat applied beneath the copper strip. Arsenic is deposited as octahedral crystals. Mercury is deposited as small silvery globules which can be easily seen under the low power of the microscope. Figure 1 shows the tube with the copper foil when it has been heated. Figure 2 shows the octahedral crystal of arsenic. Figure 3 shows the globules of mercury. Controls can be run with known specimens of arsenic and mercury.

TREATMENT

Every type of poisoning requires a specific treatment. However, as the particular poison may not have been identified at the time of your examination of the patient, certain general rules can be followed in the treatment. These are: (1) removal

of the poison, (2) administration of antidotes, (3) symptomatic treatment.

1. Wash out the stomach with plain water or one teaspoonful of baking soda to the pint unless an alkali had been taken. If a stomach pump is not handy, give copper sulphate gr. V, or zinc sulphate gr. XV, or a hypodermic of 1/10 gr. of apomorphine.

2. Remove poisons by enema.

3. Use Shaefer method of resuscitation when respiration is failing, or, if in a hospital, give oxygen with 5% carbon dioxide.

4. Do intubation or tracheotomy if patient is unable to swallow or breathe as in the case of acids, alkali, or bichloride of mercury.

5. Apply cold compresses to the head and sponge the body until temperature is normal.

6. Inducement of sweating tends to remove some poisons.

7. Passive massage of limbs will improve circulation.

8. Give gelatinous drinks in cases of alkali poisoning.

9. Give pieces of ice to hold in the mouth in alkali poisoning.

10. Catheterize the urinary bladder in case of morphine poisoning to prevent reabsorption of the alkaloid and also for chemical examination.

11. Obtain dilution of poison in the blood by hypodermoclysis, using Fisher's solution or normal saline.

In case the poison is known, give the appropriate antidote; otherwise use a general antidote composed of magnesium oxide two parts, and one part each of activated charcoal, tannic acid, and alcresta (purified Fuller's earth). The mixture may be given in doses of a heaping teaspoonful stirred

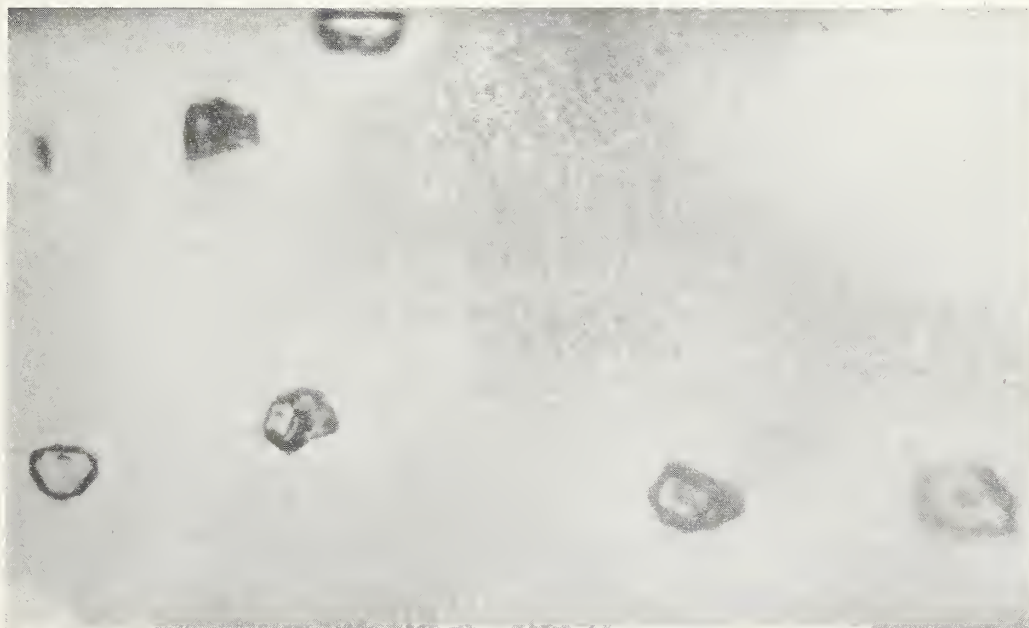


Figure 2. Arsenic crystals. Reinsch test.

with water or milk and can be repeated several times if necessary. The stomach should be washed out after each dose.

The treatment of poisoning may be briefly summarized by stating that the first step should be the removal of the poison from the stomach. Second, administration of appropriate chemical or mechanical antidotes. Under the chemical antidote we usually have another chemical either neutralizing the first poison or detoxifying it by forming an insoluble compound. Thus in the case of a corrosive alkali we would neutralize the effect of the alkali by adding a weak acid such as vinegar or lemon juice.

Use caution in the selection of an antidote. It should be nearly harmless so that if given in excess will do little or no damage.³ The weak acids mentioned would be preferable to sulphuric acid. If a soluble barium salt had been taken, it may be rendered insoluble by the administration of a soluble sulphate such as magnesium sulphate to precipitate the harmless barium sulphate.

Under mechanical antidotes are those substances which reduce the absorption of the poison by enveloping it with a coating of oil or fat or the whites of eggs. These substances covering the stomach walls also prevent the absorption of the poison until removed. The effects of the poison can be altered by the use of "physiological antidotes," as in the treatment of strychnine poisoning, by the use of chloral hydrate, chloroform, or barbiturates.

The poison can be eliminated by the use of diuretics, cathartics, enemas, and hot packs. Many poisons are eliminated through the kidneys, and large drafts of water should be administered after the removal of the poison from the stomach, and potassium acetate, caffeine, digitalis, theobromine, or other diuretics administered unless contraindicated. Hot packs over the abdomen and over the region of the kidneys will increase their activity when they are congested by the poison. If the patient is unable to void naturally, the bladder should be emptied by a catheter. Since most cathartics are too slow in action, the bowel should be emptied by means of soapsuds enemas or plain water. In certain poisons it will be found of value to increase the activity of the skin by the use of a hypodermic injection of pilocarpine.

By dilution of the poison in the blood and favoring the action of the organs, elimination can be accomplished by the hypodermic injection of normal salt solution (hypodermoclysis) into the breast. Where it is not possible to set up an apparatus for hypodermoclysis, a saline solution can be administered as a retention enema in the lower bowel (enteroclysis).

When there is considerable pain, anodynes can be administered. In cardiac trouble give strychnine, digitalis, camphorated oil, caffeine, and caffeine with sodium benzoate. Chloral or chloroform can be given to control convulsions if they are not due to methyl chloride or to other poisons of this series. Patients should be given the best nursing service possible and visitors should be kept out of

³ McNally, Wm. D., *Toxicology*, p. 12, 1937.



Figure 3. Globules of mercury (Reinsch test).

the room until all danger is past. Electric pads and hot water bottles may be applied to the body or to the extremities in case of coldness or chills.

In the space allotted to this article it is possible to take into consideration only a few of the common poisons. The first one the author will take up is carbon monoxide.

CARBON MONOXIDE POISONING

Carbon monoxide is one of the most important poisons associated with human life and industry. The death rate of this poison is exceeded by only one other poison, grain alcohol. As carbon monoxide is the result of the incomplete combustion of carbon, man came in contact with the most subtle of poisons with the kindling of his first fire. The effects of carbon monoxide were known in antiquity. Some of the symptoms of carbon monoxide were known nearly 300 years B. C., as Aristotle observed that "men suffered from heaviness of the head and often died from coal gas." Most of the deaths in recent years have been due largely to the more extended use of artificial gas as a source of heat and power, also to the rapidly increasing use of the internal combustion engine whose exhaust always contains carbon monoxide. In localities where natural gas is being used with a small amount of other gas, the carbon monoxide content of the commercial gas has been reduced to about 3 per cent. This, as noted in the table below, has caused a steady drop in deaths in the last three years.

DEATHS DUE TO CARBON MONOXIDE IN COOK COUNTY, ILLINOIS

1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
470	479	518	386	237	214	361	412	320	403	375
1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	
398	237	310	304	188	128	143	74	80	63	

Carbon monoxide, when pure, is nearly insoluble in water; it is a colorless, tasteless, and practically odorless gas, this last physical property making it dangerous as a source of poisoning. The density compared to air is 0.967.⁴ It can be compressed into liquid and into a solid. It has a coefficient of solubility of 0.0243 at 15°C.

Carbon monoxide is produced at the electrodes or from the charges of electric furnaces. In electric furnaces having limestone linings the carbon dioxide is reduced to carbon monoxide at the heated electrodes; the gas escapes unburned, producing characteristic symptoms. The most common sources of carbon monoxide, with the excep-

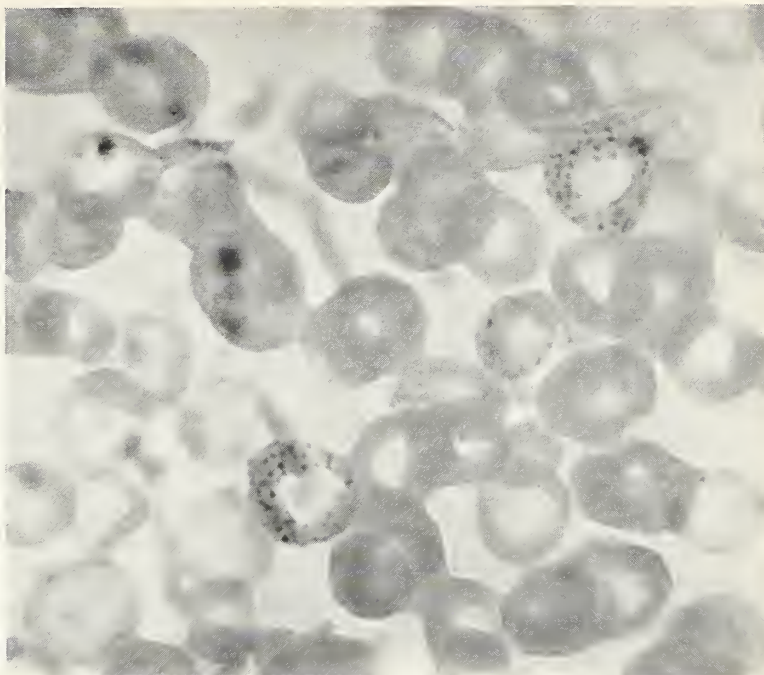


Figure No. 4 Basophilic Stippling in Lead Poisoning. (Wright Stain.)

tion of its marked formation during a severe lightning storm, are stoves, grates, salamanders, domestic and industrial furnaces, distillation of oil, gas engines, fumes from explosions, burning x-ray films, smouldering ashes, mine coal, and natural and artificial gases. It is formed whenever incomplete combustion of carbon occurs, such as flames on besooted surfaces and low burning oil lamps. Using an intermittent aspirator to imitate the smoking of tobacco, I found that the carbon monoxide from the inhaled smoke from cigarettes was from 0.1 to 0.26% of the tobacco and paper consumed, from cigars 0.027 to 0.15%, and from pipe tobacco 0.27%.⁵

The greatest percentage of carbon monoxide asphyxiation is through the medium of illuminating gas, which has the characteristic odor of the hydrocarbons accompanying the gas. This familiar odor does not prevent many accidental poisonings, as the odor may not be perceived by those in deep sleep, or by a person with a defective sense of smell.

Carbon monoxide may be freely respired as its presence in air is not manifested either by irritation to the air passages or by its affecting the sense of smell as is noted with sulphur dioxide used in mechanical refrigeration. However, the moment carbon monoxide comes in contact with the blood, by diffusion, it unites with the red pigment of the blood corpuscles, forming a definite compound, carbon monoxide hemoglobin exactly replacing the oxygen volume for volume. According to the research of Nicloux,⁶ one volume of

⁵ McNally, W. D.: Toxicology, 1937.

⁶ Nicloux: Presse Med. 25: 153, 1916, Ibid. 29: 701, 1921.

⁴ Kobert, R.: Kopenhium der toxiologie, 1912.

carbon monoxide acts like 220 volumes of oxygen. The corpuscles are not dead; all that the blood needs is oxygen under sufficient tension to displace the carbon monoxide. Hill and Barcroft⁷ have shown that carbon monoxide enters into combination more readily when a little oxygen is present than when it is completely absent.

Haldane⁸ believes that all the effects of carbon monoxide can be referred to lack of oxygen, the symptoms increasing with the saturation of the blood. Mice were kept alive on exposures of 200 to 300 times the fatal dose of carbon monoxide in the presence of oxygen under 1 or 2 atmospheres of pressure. Haggard⁹ maintains that there is no direct toxic action of carbon monoxide on the heart, for if respiratory failure is prevented by means of administration of 8% to 10% carbon dioxide, the CO combination with the hemoglobin may rise to an unusually high percentage without any evidence of impairment of the heart function. Death in cases of carbon monoxide asphyxia is due to the failure of respiration, of the nature of a fatal apnea vera. Haggard further states that the lack of oxygen resulting from the formation of CO hemoglobin induces excessive breathing which in turn results in an abnormal loss of carbon dioxide followed by failure of respiration. The increasing anoxemia from this cause results in the development of heart block through its various states.

Regardless of what may be the belief as to the nature of CO poisoning,¹⁰ whether CO causes only a simple asphyxia or is a toxic agent, it is well recognized that where carbon monoxide has been inhaled for a considerable time the damage done to the nervous tissue, especially the vital nerve centers, is very serious. Some observers declare that carbon monoxide exercises a specific action upon the nervous mechanism of the heart which has been attributed to its specificity for the nerve centers.

The period of time during which the presence of carbon monoxide may be detected in the blood does not depend alone upon the duration of the period of exposure or its intensity, but upon individual peculiarities as well. In most cases, however, the length of time during which CO may be detected depends largely upon the period of exposure.

The symptoms may simulate many other conditions. The reason for this is chiefly in the rate of absorption and the extent of the combination of the hemoglobin with the gas. When the volume of breathing is increased by muscular exertion, the absorption of gas is proportionately increased. The smaller or younger the individual the quicker is the saturation of the blood by carbon monoxide. In the resting stage the volume of breathing varies

between individuals as a function of the surface area of their bodies. Small individuals succumb to carbon monoxide more rapidly than large individuals, for the volume of their respiration is greater in relation to the volume of their blood. This fact is made of practical use in the examination of the air of mines when mice or canaries are carried into the vitiated air as living signals of dangerous amounts of gas. Men breathing the same atmosphere have about twenty times as long a stay in the contaminated air as the small animals before getting into a like condition, as men have one-twentieth the skin surface of the small animal per unit of body weight.

PERCENTAGE SATURATION OF THE BLOOD WITH CARBON MONOXIDE AND CORRESPONDING PHYSIOLOGICAL EFFECTS

Per cent of hemoglobin in combination with carbon monoxide	Physiological effect
10.....	No appreciable effect except shortness of breath on vigorous muscular exertion.
20.....	No appreciable effect in most cases except short wind even on moderate exertion; slight headache in some cases.
30.....	Decided headache; irritable; easily fatigued; judgment disturbed.
40-50.....	Headache, confusion, collapse, and fainting on exertion.
60-70.....	Unconsciousness; respiratory failure and death if exposure is long continued.
80.....	Rapidly fatal.
Over 80.....	Immediately fatal.

The onset of symptoms may be sudden, but usually there are warning sensations such as headache, throbbing of the temples, ringing in the ears, faintness, dizziness, and vomiting. The face becomes red, there is loss of memory, vertigo, fainting, anesthesia and loss of all spontaneous power of movement. The heart action is at first violent, then weak, slow and arrested. The body temperature is lowered. Recovery is sometimes rapid. As a rule, however, there is a slow return to consciousness with a prolonged headache and nausea. When the gas itself does not kill, apoplexy or softening of the brain may follow.

In the acute stage, a diagnosis of food poisoning, strychnine poisoning, diabetes, and alcoholism has been made in cases of carbon monoxide poisoning. In fact the symptoms are so varied that a physician is reminded of diseases of the brain, spinal cord, lungs, kidneys, liver, and skin. Since many cases have persistent vomiting, a few have convulsions, some are in a coma, a few have delirium, and 20% have glycosuria, a faulty diagnosis cannot always be criticized.

Chronic poisoning by carbon monoxide has received the attention of many observers in recent years. There is very good evidence of this form. Accumulated cases show that it is the result of being in a constantly contaminated atmosphere. The symptoms are described as an alteration in

⁷ Hill and Barcroft: *Biochem. Jour.*, 7: 471, 1914; *Ibid.* 48, 491.

⁸ Haldane: *Biochem. Jour.*, 13: 44, 275, 1912.

⁹ Haggard: *Am. J. Physiol.*, 56, 390, 1921.

¹⁰ McNally, Wm. D., *Ill. Med. Jour.*, 59: 383-388, 1931.

digestion, diminished vigor, gray color of the skin, coated tongue, loss of memory, diminution of psychic powers and occasional convulsions. The pathologic findings at autopsies have shown, in some cases, fatty degeneration; in others, pernicious anemia.¹¹

Haines, Karasek, and Apfelbach,¹² in their investigation of the effects of carbon monoxide, found that workmen exposed frequently to the gas in metallurgical establishments, in a large majority of cases, developed a considerable increase of red corpuscles above the normal, the number in one case examined reaching 9,000,000. The amount of hemoglobin was also usually above the normal. These investigators attribute the increase in red cells and hemoglobin to a protective effort on the part of the system.

Treatment: This consists in removing the person at once from the poisonous atmosphere into fresh air and in inducing artificial respiration as rapidly as possible; the administration of oxygen under slight pressure, enough to distend the cheeks, and compressing the lungs, is considered one of the most efficient methods of restoring the person to life. Elimination can be hastened by the inhalation of oxygen and carbon dioxide, 5%. Methylene blue is not an antidote but has a synergistic action.

MERCURY

The diagnosis of acute mercurial poisoning is made easy by the use of the previously mentioned Reinsch test. This test, however, does not distinguish the source of mercury as to whether it is of mercuric or mercurous origin. Bichloride of mercury is easily obtained in the form of tablets, for use as a disinfectant, colored by indigo, methylene blue, or other dyes. There is no odor but it has an acrid, metallic taste. It is soluble in 16 parts of cold water and 3 parts of boiling water, but is far more soluble in a solution of common salt or other alkaline chlorides. A fatal poisoning has occurred when a tablet of corrosive sublimate was mistaken for that of aspirin, also when a tablet was introduced into the vagina for the purpose of inducing abortion. Children have mistaken bichloride of mercury tablets for candy with fatal results. Another common source of acute mercury poisoning is the swallowing of powder and tablets for the purpose of committing suicide.

Symptoms: When mercury is taken by mouth the symptoms usually appear within a few minutes. There is a strong metallic taste, constriction in the throat, retching, and a burning sensation in the gullet and stomach. A white coating forms at once on the shrivelled lining of the mouth, the inflammation of the throat may involve the larynx, and acute swelling of the glottis may cause asphyxia. The pain in the stomach is so severe as to cause fainting. Vomiting may occur within five minutes,

and later purging and straining with bloody stools; there may be hemorrhages from the mouth, stomach, and bowels. I have seen mucous patches as large as one's hand discharged from the bowel. The urine is scanty and suppressed, temperature may be febrile or subnormal, respiration difficult, the pulse thready and irregular. Death is preceded by collapse, unconsciousness, or convulsions. A decrease in the chlorine content of the blood and a decrease of the alkaline reserve due to acidosis is found. To show the progress made in the treatment, the blood chemistry is a valuable aid. The normal nonprotein nitrogen per 100 cc. of blood is 25 to 35 mg. In mercurial poisoning we see this jump from the eighties on the third day to over 200 on the tenth day. This is a bad prognosis, as the patient usually dies. However, if the non-protein nitrogen begins to go down after the seventh day, you may be certain that the patient will recover. The urea nitrogen is normally from 12 to 14. This may increase suddenly to 70 mg. on the third day and to over 170 mg. on the tenth day in bad cases. In fact, all of the constituents, the urea-N, ammonia and amino-N, uric acid N, and creatinine-N of the blood are nearly doubled.

Treatment: In all cases seen within an hour the whites of two eggs in a pint of milk should be given per mouth and aspirated in five minutes. (Skimmed milk should be used since all fats dissolve mercury salt and aid in their absorption.) Before leaving the office, telephone the patient and instruct him to take milk and induce vomiting without delay or have relatives forcibly give milk in case of attempted suicide. A second portion of milk and eggs should be given, allowed to remain in the stomach for ten minutes, and then be pumped out. While waiting, one-half gram of sodium thiosulphate should be given intravenously, repeated in ten hours, and daily, for a period of four to five days. After aspiration of the second pint of milk, wash out the stomach every four hours with a quart of water containing 8 grains of calcium sulphide. Colonic flushings of one gallon of water should be given every eight hours, using four grains of calcium sulphide to each pint of water. This is continued until the flushings fail to show mercury.

The absorption therapy of animal or blood charcoal should be used when cases are seen early. One gram of Merck's "Carbo Medicinalis" will bind 850 mg. of bichloride of mercury, 580 mg. of strychnine, or 40-50 mg. of phenol. Whatever treatment is instituted, it calls for the intravenous injection of sodium chloride due to chlorine impoverishment of the blood. This can be given with glucose, which stimulates the secretion of urine. Rosenthal, of the Public Health Service, recommended the use of sodium formaldehyde sulphonylate in intravenous injections of one gram. Wash out the stomach with a 5% sulphonylate solution, using 250 cc., allowing another 300 cc. of the 5% solution to remain in the stomach.

¹¹ McNally, Wm. D., *Toxicology*, Vol. 1, 337, 1937.

¹² Haines, Karasek, and Apfelbach: Report of (Illinois) Commission on Occupational Diseases, 89: 1911.

However, Brown and Kolmer¹³ were unsuccessful, they report, in their endeavor to corroborate the results obtained by Rosenthal with sodium formaldehyde sulphoxylate in mercurial poisoning. In their experiments, using only the minimal lethal dose of mercuric chloride, they had but indifferent success in saving rabbits with sodium formaldehyde sulphoxylate. These authors believe that the chief value of sodium formaldehyde sulphoxylate as an antidote in acute mercurial poisoning lies in its use by mouth in sufficient quantities and sufficiently early. Intravenous treatment should be used with caution and the preparation must be given before one hour has elapsed from the time of ingestion of the bichloride of mercury.

STRYCHNINE

Strychnine poisoning occurs occasionally in children who take the colored tonic tablets and Hinkle's pills for candy. All such preparations should be prohibited from sale unless given on a prescription by a physician. If a druggist dispenses preparations such as these, he should mark them with a poison label. The symptoms of strychnine poisoning are familiar but it may be well to remind you of the use of barbiturates in strychnine poisoning because of their anticonvulsant efficiency. Sodium amytal may be given intravenously. Barlow suggests fractional intravenous injections of pentobarbital, the initial dose being 1/10 grain of sodium pentobarbital per pound of body weight and 1/20 grain per pound of body weight when convulsions reappear. Caution should be exercised when more than four injections have been given during the first two or three hours. Apomorphine can be given, 1/10 grain for adults, for its emetic action causes evacuation of the unabsorbed strychnine from the stomach. The stomach should be washed out with potassium permanganate solution, diluted to the color of port wine. Give chloral per rectum to control convulsions when barbiturates do not act readily. Barbiturates are not as specific as the early claims indicated.

SOLVENTS

Poisoning by organic solvents is not common but can be avoided by prohibiting the sale of more than a pint of the solvent to the layman. Cleaners and dyers clean clothes so reasonably that it does not pay to take a chance with solvents such as carbon tetrachloride, benzol, or trichlorethylene. These are chiefly of interest to the industrial physician but poisoning occurs even in the home with these solvents.

Benzol causes an extreme leukopenia caused by aplasia of the bone marrow affecting especially the granular leukocytes. The physician must not depend on a leukopenia for the diagnosis, for in benzol poisoning we may have an extremely low red count. In one case that I saw, two years ago, the red count was 3,500,000, the white cells 950.

But occasionally the red count may run as low as 1½ million cells. The clinical picture is one of progressive anemia with fatigue, weakness, bleeding from the gums, and nose, followed by rapid decline, petechial hemorrhages from the stomach, bowels and mouth; temperature from 100 to 105 degrees, sometimes chills, with death from anoxemia and heart failure. One might confuse benzol poisoning with agranulocytic leukopenia. The lower the red count, the less likely is the disease to be true agranulocytosis. Von Hans Jost¹⁴ and Yant and his associates¹⁵ have demonstrated that there is an increase in the urine of the inorganic sulphates in the total sulphates in benzol poisoning.

Treatment: For the treatment of anemia it is necessary to give a transfusion of 300 to 500 cc. of blood. To strengthen the activity of the bone marrow, daily injections of the various types of liver extracts may be tried. Pentnucleotide 0.7 grams intravenously and intramuscularly may stimulate bone marrow to prevent maturation arrest of white blood cells at the stem stage. It has, however, failed to prevent death in several cases. X-ray of the large bones should be used for its stimulating effect. After recovery the individuals should not return to work where they will again inhale benzol. I have seen several who, when their red blood cells reached 4,500,000 and hemoglobin 78% (Newcomer) returned to work but at occupations other than those involving benzol.

TRICHCLORETHYLENE

Symptoms: Entrance to the human body is usually by inhalation, although this may occur through the intact skin which will become seriously burned, and generalized toxic symptoms follow if the dose is sufficient. Trichlorethylene is closely related chemically with chloroform, and has a very similar narcotic as well as anesthetic action 1.7 times as strong. Probably there is no cumulative action, but we do find serious chronic after-effects following acute attacks of poisoning. These may consist of anesthesia in the region supplied by the trigeminal nerve distributed over the greater part of the face and mouth. Of more consequence is atrophy of the optic nerve, leading to loss of vision. The corneal reflex of the eye may be lost. The most dangerous medical feature of this drug is that it leads to addiction. I have seen three cases of poisoning this last year, in one of which the illness was due to a decomposition product, phosgene. The other two had eye disturbances, and one of these still complains of pains in the right chest.

Treatment: The cardinal point in treatment is the removal from exposure. This may be most difficult in the event the patient has become addicted to trichlorethylene.

Little or nothing can be done for the optic

¹³ Brown and Kolmer: *Jour. of Pharm. and Exper. Therap.*, Baltimore, 52: 355, 1934.

¹⁴ Archiv. für Gewerbepath. und Gewerbehyg., 31: 491, 1932.

¹⁵ Jour. Ind. Hyg. and Tox., 18: 68, 1936.

atrophy. Bronchitis, pneumonia and other lung irritations should be treated in the usual way. Damage to the internal organs such as the liver, spleen, and kidneys, does not respond very well to treatment, but further progress of consequence terminates shortly after the end of exposure to the drug.

CARBON TETRACHLORIDE

Carbon tetrachloride (CCl_4) is a liquid with an agreeable odor. It is an excellent solvent for fats, oils, and many organic substances. Because of its non-inflammability it is used in industry and in the home for dry cleaning of clothes. When inhaled, it leads to an irritating cough, headache, hiccup, nausea, vomiting, diarrhea, pain and tenderness over the liver. Jaundiced sclera are seen in the early stages.

Give calcium gluconate and saline solutions intravenously. It may be necessary to give epinephrine caffeine with sodium benzoate, and digitalis for the cardiac involvement.

LEAD

Lead intoxication may occur in any industry where lead is used. It is more liable to occur in occupations where lead is volatilized, in smelting or refining, or where soldering is done without adequate protective measures by exhausts or masks. Water in new lead plumbing may be a source of intoxication. Toys of lead, paint upon cribs, cosmetics, and hair dyes containing lead

have been responsible for cases of poisoning. The young are peculiarly susceptible to lead. I see more cases of lead intoxication in the colored race than in the white race. In my textbook¹⁶ are recorded twenty outstanding signs and symptoms of lead poisoning. Fatigue and weakness, loss of appetite, loss of weight, were noted in all cases (100%); headaches, 91%; anemia, 90%; pallor, sallow, pale complexion, 83%; tremor of hands, tongue, eyelids, 80%; abdominal pain, 68%; constipation, 68%; pain in muscles and joints, 58%. The lead line was noted in persons with poor dentures. I have seen it in only 36% of my cases. It is not a line, but consists of small punctate dots on the gums between the teeth. A small hand lens aids in locating the dots, which are due to a deposition of lead sulphide. The wrist drop described in textbooks is rarely seen except in painters. Pain in the muscles of the legs is more frequent. Diagnosis in the acute stages is made by a smear stained either by the McCord or the Wright method. The red blood cells are usually below 4,500,000, hemoglobin below 78%. The urine will show lead in excess of 0.10 mg. per 1,000 cc.

In the treatment of lead poisoning we have two methods, that of fixation or withdrawal of the lead from the system. The lead is fixed by calcium therapy or withdrawn by the production of a mild acidosis with ammonium chloride or by a few grains of potassium given daily.

¹⁶ McNally, Toxicology, page 161, 1937.

CASE REPORT: DIZYGOTIC TWINS*

WILLIAM C. MURPHY

W. W. EICHELBERGER, M.D.

Evansville

Social History:

Father, fifty-nine, a coal miner by occupation, but now working for WPA. He has had only two years of schooling.

Mother, fifty-seven, was raised in an orphan's home, has had two years' education. She has suffered from epilepsy since the age of twenty-one, seizures being quite frequent and severe. Recently she has become combative during seizures and wanders away from home. There are nine children in the family ranging in age from thirty-four to nineteen.

Personal History of A:

Information from the father: Patient is one of twin girls. She was born in 1919, and weighed seven pounds at birth. (Her sister weighed five and one-quarter pounds.) Patient was first of twins born. During babyhood and girlhood she was

the better developed of the two but had little use of her body. She did not walk until she was five years of age (sister walked at two years) or talk until she was four (sister talked at two years of age). She was not cross as a baby. She wet her clothing and the bed until she was fourteen years of age. She does not do this now although she has to get up several times during the night to urinate. She sleeps and eats well. She is easily irritated and has frequent temper tantrums, but is not any worse in this respect than her twin sister. She talks about the boys a great deal but has never had any attention from them. She has had no sickness the father could think of until she was able to walk. Then she had measles and smallpox. She could handle herself much better as a child than she now can. The older she grows the more clumsy she seems to get. She can walk only very short distances without being helped. Frequently her knees suddenly give away and she falls down. She can stand only for a short time because her

* From the out-patient department of the Evansville State Hospital.

legs get shaky and she falls. She sometimes helps with the dishes, sits in a chair and wipes them, but she has broken a number of them. This is the only kind of work she has tried to do.

Physical examination negative except for extremities which were as follows: Left foot flat. No instep at all. Right foot normal. Left leg somewhat smaller than right but no marked atrophy. Gait is hemiplegic. Patient walks on inner side of left foot (talipes varus) and swings left foot and limb out with every step. Gait is very unsteady and she cannot walk any distance without assistance, frequently falling on her knees which are badly bruised. When walking she cannot turn around without taking hold of something.

Sensory disturbances—none.

Neurological symptoms—Marked and continuous choreoid movements involving face, body and limbs, which are made worse by emotional excitement. Patient has difficulty in holding anything in her hands and frequently drops objects. Fingers are contracted in palms but can be straightened. Arms are stiff at elbows. Speech is slow and distinct.

Psychological Examination:

On the new revision of the Stanford-Binet scale of general intelligence, form L, she achieved a mental age score of seven years, eleven months, Intelligence Quotient 53. Test responses were normal excepting that motor coordination was very poor. Memory proved good considering her general mental ability and she succeeded in passing this test at the eleven year level. Vocabulary was passed at the six year level. Reasoning was fair and she succeeded in passing these tests at the eight year level. On the Kent Oral Emergency Test she achieved a mental age score of eight and one-half years.

General Summary:

A is a feeble-minded white female adult of low moron level of intelligence. She suffers from cerebral palsy of childhood.

There is no family resemblance between A and her twin sister B. B is in good physical condition, completed the ninth grade of school at fourteen. Her I.Q. is 94. She has been self-supporting for several years.

The INDIANA PLAN in regard to SMALLPOX covers the following points:

1. Vaccinate every child at the age of one year, after completion of diphtheria immunization.
2. Vaccinate again upon entering grade school, and thereafter at regular intervals by the family doctor.

Extend the scope of preventive medicine to include other infectious diseases and metabolic disturbances as methods are proved to control them.

TOPICS OF THE MONTHS FOR 1939

During the year 1939, THE JOURNAL will continue its policy of featuring one subject each month. This is one phase of the "Indiana Plan" and it is suggested that each county medical society devote some time each month to a discussion of the featured subjects.

Secretaries already have been supplied with the list of topics for 1939. Members who are interested in the work will want to know the topics, and they are listed below for that purpose. Topics scheduled for 1939 are tentative but any deviation from the schedule will be announced early.

January—Pneumonia.

February—Venereal Diseases.

March—Speech and Hearing Defects and the Maladjusted Child.

April—Cancer.

May—Allergies (Hay Fever, Asthma, Hives, Urticaria, Angioneurotic Edema, and Eczema).

June—Insect Borne Diseases (Malaria, Typhoid, Dysentery, Rocky Mountain Spotted Fever).

July—Crippled Children.

August—Heart Disease and Geriatrics.

September—Mental Diseases—Prevention of Insanity.

October—Tuberculosis.

November—Diabetes and Drug Addiction.

December—Year's Summary.

THE JOURNAL wants the active interest of every member of the Indiana State Medical Association. The editor solicits your suggestions and constructive criticisms.

THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL
PROFESSION OF INDIANA

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DECEMBER, 1938

Editorials

SMALLPOX IS STILL WITH US

It was while George Washington was president that Edward Jenner discovered the means of preventing smallpox. Somewhat later, Thomas Jefferson—while he was president—wrote to Jenner to congratulate him, saying that as a result of his discovery the terrible scourge could be and would be soon abolished from the earth. And yet—one hundred and fifty years later—we must admit that as a result of human sloth and stupidity we have smallpox in our midst. Last spring it became pretty much of a problem in many communities of our state: In a number of cities in the northern half of the state it assumed serious proportions, and there were several deaths. Understanding the nature of such epidemics, we feel free to predict that this year again much the same will happen as soon as the time rolls around when people will be spending most of their time indoors.

What to do? It would seem hardly necessary to mention again the ritual of vaccination, but it is the only means of real protection. The idea that boards of health should control smallpox by means of sanitation and quarantine is utterly antiquated, though to be sure we do have a right to expect our community to be sanitary and that sick people shall be kept in. Sanitation in the usual meaning of the word has nothing to do with the spread of smallpox. The cleanest person in the world living in the cleanest environment will contract smallpox if he is exposed to it when he is in a susceptible state. Quarantine is of mighty little value for the reason that the disease is highly infectious at a time when the diagnosis could not possibly be made unless one

were expecting a given person to be coming down with the disease and were watching for its first symptom. Furthermore, there are always light atypical cases which succeed in evading the most thorough quarantine.

Vaccination, however, properly managed, can absolutely prevent this disease. Every child should be vaccinated before the age of six months or a year, provided, of course, that he is in good physical condition and is developing normally and properly. Then he should be vaccinated again when he starts to school and thereafter at intervals of ten years or oftener if he is exposed or in more than usual danger of being exposed. We hesitate to ask for compulsory vaccination simply because we are afraid of making martyrs of those who adore their martyrdom, but compulsory vaccination certainly does put an end to smallpox. Much improvement has been made in the manufacture of the vaccine virus. The possibility of transmitting syphilis (as in the arm to arm method) or tetanus (as when uncontrolled virus was used or bunion plasters were used as shields) has been completely removed. Recently, since the virus is being manufactured from chicken embryos, the possibility of transmitting pyogenic infection in the virus has been eliminated. With the new and improved methods of introducing the virus into the skin (multiple pressure method, punctate method, or probably better than all the method of making one shallow scratch one-eighth of an inch long), it is rare to see the extremely sore arms of other days. Wash the arm thoroughly with soap and water, apply the virus, use no shield or dressing except when the clothing is dirty when it may be well to pin a clean piece of gauze or a handkerchief inside of the sleeve. With the occurrence of post-vaccinal encephalitis as a possibility, although it is very rare in this hemisphere, it will be well to avoid vaccination when one has recently had influenza or any other obscure febrile condition, or when such virus infections are prevalent in the neighborhood at the time. By modern methods the scar is very small and almost invisible. For this reason, vaccination on the leg with its special hazards may and should be discontinued.

It is the duty of the medical profession to encourage vaccination against smallpox in every way that is ethically correct. Smallpox is a relic of the days of superstition and ignorance.

THE CHOICE OF A PHYSICIAN

In practically every plan evolved for the medical relief of indigents, at least every plan suggested by the medical profession, there is one outstanding declaration: the patient should be free to choose his own physician. In all medicine there is nothing so well established as is the relation between the doctor and his patient, and much of the success of treatment is dependent upon this relation. The patient who does not have confidence in his medical advisor does not do as well as the one

who has a complete confidence in the doctor who is caring for him. So it is that in all our planning, that fact stands out as the first essential.

A long time ago, when Indiana's first compensation Act was being drawn, an effort was made to write in the law this fundamental principle, but without success. The insurance carriers who, after all, were mightily concerned in the matter, were decidedly against any such arrangement, their principal contention being that if they had but one physician to deal with, but one man to call upon for reports of injuries and but one man to pay, their office work would materially be lessened and thereby there would be a reduction in premium rates. Since that time, numerous unsuccessful efforts have been made to have that feature of the law amended; the choice of the physician still remains with the employer or it is left to the insurance carrier. Recently the matter came to court issue, and the whole question was put up to the Indiana Appellate Court which handed down the ruling that, under the law, an injured employee is not entitled to a physician of his own choosing. This decision is of extreme importance at this time, due to the fact previously outlined that all present discussion of medical and surgical relief is predicated on the dictum that the choice of physician should be the inherent right of the patient.

It is not a question of whether the "company doctor" is a man of standing, a man of ability. The whole matter is that of the relation of physician and patient and, as pointed out, this relation has much to do with the outcome of the case. It is only natural that the patient would prefer to have his own physician, a man whom he knows, a man in whom he has the utmost confidence. We all have known of patients who were treated for industrial injuries by physicians other than their regular attendants and we all have heard them complain of this requirement of the law. Now that the question has finally been decided by an upper court and thus becomes the fixed law of Indiana, the question again becomes a very live issue. If we are consistent in our demand that the relation of physician and patient remain undisturbed, then something should be done about the Compensation Law. We maintain that a patient has the right to the physician of his own choice, whether he be a private patient, one on relief, or an employee of an industrial concern.

A MEDICAL SOCIETY TAKES ACTION

Fully cognizant of the economic changes taking place in America, the Lake County Medical Society has sought the proper solution of some of the problems that confront the medical profession, each of the solutions having a local application. Some three years ago the United States Public Health Service announced a campaign against venereal disease, a campaign backed by Surgeon

General Thomas Parran. From the beginning it was evident that he meant what he said and that unless local, state and national groups took serious action, it would be deemed necessary that his department take over control. Some time ago representatives of the Public Health Service and of the Indiana State Board of Health contacted representatives of the Lake County Medical Society with the suggestion that a syphilis survey of this great industrial region be undertaken. After a considerable study of the various phases of the problem, the society appointed a special committee to formulate a plan toward this end. At the society's meeting on November 10, 1938, this committee made its report and the society voted to enter into this survey, plans having been made whereby it would be under direct control of the society, with one of its members the directing head.

Problem number two. The action of the recent special session of the AMA House of Delegates, backed up in no uncertain manner by our own Association House of Delegates, declaring in favor of hospital insurance and of voluntary sickness insurance, laid these matters directly into the laps of the local county medical societies throughout the country. The Lake County Society at once took action, another special committee being named to conduct an investigation of the matter. At this same meeting, this committee made a very complete report to the effect that they had contacted a reputable insurance organization and had every reason to believe that a contract would be worked out that would cover the entire situation. In fact, this insurance company is willing to spend some money in trying out the plan, using Lake County as a trial ground.

Problem number three, and probably the most important: What to do about the county medical society secretary problem, when the society becomes so large that a member-secretary cannot attend to the multifarious duties? For two or three years past we have been aware that something would have to be done about this thing but not until the present year did anything tangible develop. Early in the year the matter was discussed in an informal manner in some of our meetings and a bit later a representative was appointed to visit the Sedgwick County (Kansas) Medical Society and make a survey of the secretarial plan in operation there for some seven years past. A report of this visit was mailed to the local membership last summer and, on the resumption of meetings in September, a Committee of Eleven was appointed to see what could be done about it. This committee worked; they held many meetings; they asked a lot of questions and got a lot of advice. They came into the October meeting with a report that was a complete review of the problem and their report was favorable to the establishment of some similar plan in Lake County. They were asked to further their studies and deliberations and to

report to the Council in advance of the November meeting. The Council action was very favorable and at the regular county society meeting it was voted, without a dissenting vote, to engage the services of a full-time, lay executive secretary, thus becoming the first county medical society in Indiana to take such a step.

The ultimate outcome of the steps taken in the solution of three of the problems presently engaging the attention of the medical profession of the country cannot be foretold; it can only be stated that the local society is enthusiastic about having reached an agreement as to what to do. Something definite has been done about the syphilis problem; plans are under way by which hospital and voluntary sickness insurance is to be made available for the people; and a definitely forward step has been taken in that the Lake County Society henceforth will have an executive secretary, a non-medical man, one who can and will "take it" and, in the taking, will give much in return.

THAT HOSPITAL INSURANCE PROGRAM

For the past two months, THE JOURNAL has made editorial comment on the subject of hospital insurance, this in accord with the recommendation of the American Medical Association and of our own state organization. It has been pointed out that it is gravely important that our component county societies take immediate and definite action toward some plan that might be suggested when occasion arises.

The fact that some two million citizens of the United States already have taken advantage of this type of insurance would indicate the popularity of such a program, once it is brought to public attention. This program is one that must be planned by each community to suit its own needs; our Association officials cannot adopt a plan that will meet the situation in all sections of the State. A hospital insurance program that would satisfy a country community probably would meet with failure in a manufacturing center; hence, it amounts to an individual society problem, and it is a problem that must be squarely met in every section of our state, and that soon.

The medical profession should control all such arrangements, a thing that can be brought about if we but get going at once and formulate a workable plan.

There are certain phases of the problem that merit more than a casual study and should be clearly understood ere we set out on the preparation of any plan. Many suggestions have been made and will continue to be made, but about the most sensible set-up that has come to our attention is a recommendation of a special committee of the Illinois State Medical Society as published in the October number of the *Illinois Medical Jour-*

nal. After a careful review of the question, the committee sets forth the following principles with all of which we are in entire accord.

1. That no hospital shall be permitted to engage in any form of contract practice with an individual, or group of individuals, for any purpose other than the use of physical facilities, materials, and non-medical services such as room and board, use of the operating and delivery rooms, drugs and medicines, surgical dressings, appliances and general nursing care.

2. That no hospital shall offer, for a price, any medical service.

3. That in no case may a hospital charge a patient for other than the use of its physical facilities, materials and non-medical services.

4. That emergency and accident patients may have first aid only, administered at the hospital, and the physician selected by the patient must be immediately notified. In no case shall a patient, able to pay, be admitted to the service of a staff member without the request of the patient's own physician, if there be one.

5. That patients who are covered by compensation, health or accident insurance, cannot be considered as indigent.

6. That none but strictly indigent patients shall be admitted to dispensaries.

7. That no patient, except in emergency, shall be admitted to a dispensary without a letter from a physician, to be followed by adequate investigation by the social worker to the hospital, who shall be able to certify that the patient is known to be indigent.

8. That patients who have been discharged shall not later be re-admitted to a dispensary, without certification by a physician that their present economic condition is the same as on his previous admission.

9. That a committee be appointed by the Council of the Illinois State Medical Society, to meet with a Committee of the Illinois Hospital Association for the purpose of creating a standing council to encourage and facilitate the application of these principles, to further codify relations between physicians and hospitals, and to act as a Board of Review in considering violations of these principles by hospitals and physicians.

These principles cover the field very well and clearly set forth our objections to hospitals engaging in the practice of medicine. We cannot conceive of any modern hospital having the slightest objection to anything therein contained, and it is our belief that if these principles are adopted by institutions wishing to participate in a hospital insurance program, interested physicians will "go along" without protest. We commend a study of these proposals to all Indiana physicians whose local hospital or hospitals may be considering the hospital insurance problem.

TRAFFIC IN DRUGS

The most illuminating, authoritative article on the evils leading to the demand for some changes in the Federal Pure Food and Drugs Act that has come to our attention appears in the October number of *The Journal of the Connecticut State Medical Society*, from the pen of Theodore G. Klumpp, chief medical officer of the U.S. Food and Drug Administration. It is unfortunate that such an article cannot be given the widest publicity, for it contains material which would create an immediate and insistent demand that something definite and drastic be done about an obnoxious situation.

The author naively begins his recital by "building a house," directing the attention of the reader that in the building one must comply with numerous regulatory procedures, and similar regulations apply to the equipment of the building. Then he quaintly draws a parallel by saying, "But a person who has a desire to get rich quick, or a yen for pharmaceutical experimentation or a crack-pot notion that some weed growing in his garden has medicinal value, can make any drug concoction he pleases and sell it." This, the author says, is done by the beguiling voice of the radio announcer or, "if he wants to sell the article through doctors, he sends a detail man who explains in a confidential manner what the product is doing for all the other doctors. As a final gesture of assurance, he can bait the trap with a sample, and that is cheese that many doctors cannot resist."

The author states that each week his department receives as many as one hundred communications from over the country and from all sorts of people, each of whom is interested in the marketing of a new food or drug. Evidently those of this gentry have observed that the other fellow gets away with it, so why not he?

Mull over this pungent paragraph, if you please: "These people have no more right to prescribe for and treat symptoms and diseases than you have to build a bridge, or design an ocean liner, or fly a transport plane. You can't do these things, or even install plumbing or electric wiring without a license, but any one can sell dinitrophenol to destroy a man's eyesight, or cincophen to damage his liver, or radium to bombard his bone marrow, or aminopyrine to rob him of his defenses against infections, or diethylene glycol to kill him outright, and there is nothing to stop him!"

In speaking of "Elixir Sulfanilamide-Massengill," he avers that the government could do nothing about it because the concoction was deadly, but that their only entrance into the case laid in the fact that the product was not an elixir and, therefore, was misbranded. The fact that this unsavory product caused almost one hundred deaths was not, under the law, a concern of the government!

"Revivo" pills were being sold by a Chicago druggist under his own label. Federal investigation showed that the pills were all of one color but were

of variable size, and that they were from salvaged stocks of drugs and probably no two of them were of the same composition. Another lot, of a different color, was given the euphonious name of "Retardo." Get it? If cold and anti-social, take "Revivo." If at the other end of the Fahrenheit recorder, you are sure to find solace in "Retardo." One probably would serve about as usefully as the other.

Another druggist had on hand a conglomerate mess of unsalable liquid preparations, and he mixed them in one large vat, bottled the result, and sold it as a liniment—probably good for man or beast, as the ads used to run down Wild Cat way.

"Health" advertising comes in for a scathing denunciation, not overlooking the family "doctor books." Too often, Dr. Klumpp declares, the reader puts too much trust in these readings, with the result that a ruptured appendix or a well-defined case of pneumonia occurs before the physician is called.

For violations of the laws laid down, presumably for the protection of the American public, there is a maximum fine of *two hundred dollars*. Usually the fine is fifty dollars or less; in one case the fine was one cent!

Much more in a similar vein might be quoted from the article, but enough has been cited to show the need of further legislation along these lines. It is true that the recent Congress did give us some relief, and it is also true that the same Congress all but emasculated the original bill that was presented.

The material contained in Dr. Klumpp's article is sufficient to create a demand for legislation that would mean absolute protection, if the reading public were acquainted with it. Is it too much to hope that some organization, perhaps the Bureau of Investigation of the American Medical Association, will see to it that the information therein contained is made available for public consumption?

THE JOURNAL

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CHRISTMAS



Editorial Notes

First county with 100% paid-up membership for 1939 is SULLIVAN COUNTY. Dr. James B. Maple is secretary. What county will have second place?

Next October may seem a long way in the future, but October 10, 11, and 12 are the dates set for our next annual meeting, at Fort Wayne. It will be well to get out your 1939 calendar and mark these dates. This thing of attending our annual sessions is getting to be a habit with several hundred of our members, a very good habit, too. If you have not acquired it, 1939 is a good time to begin.

Chairman Nafe of the Executive Committee is not in agreement with the secretarial policy of the Indianapolis Medical Society in that a new secretary is elected at three-year intervals. We believe Dr. Nafe is correct in his discussion of this matter in a recent issue of the *Bulletin* of that society. The office of secretary is the most important office in any county society, and when once a good man is installed on that job, he should be continued there just as long as he can and will "take it."

The suggestion of President Baker that the Committee on Postgraduate Education be composed of six members, their terms being so staggered that a member would serve for six years, is an excellent one. We know of no department of the Association that is of more importance than this and a six-year term will assure a committee that is fully aware of the needs of post-graduate training throughout the state and one that capably interprets that need.

Three additional committees will find a place in the affairs of the Association from henceforth: Committee to Study National Health Situation, Anti-Tuberculosis Committee (this to act in conjunction with the Indiana Tuberculosis Association), and a Committee on the Conservation of Vision. Each of these groups has an important duty to perform and, like all other Association committees, will no doubt acquit themselves to the credit of our organization.

Complaint has reached THE JOURNAL that the report of the Indianapolis session was printed in six-point type and, therefore, was rather hard to

read. This criticism is, of course, a justifiable one and we pledge that the offense will not be repeated. In extenuation we may say that THE JOURNAL operates on a budget, as do all other departments of Association activities, and it is not always possible to use extra pages, hence it is necessary to reduce the type sizes accordingly. However, arrangements are now being made so that when it is necessary to include an unusual amount of material in any number of our magazine we simply will resort to the only proper solution: use more pages.

That some of our pioneer Hoosier doctors had a very high standing in their communities is evidenced by a clipping from the *New Harmony Gazette* of October 20, 1826—112 years ago:

"Died—suddenly, at Mt. Vernon, of what is commonly called the 'milk sickness' on Sunday night, Dr. Robert B. Hough.

"At a meeting of the inhabitants of the town on the following day, it was resolved, as a testimony of respect for their deceased fellow townsman, that they would wear crape on the left arm for one month."

We had a caller today, a man most interesting, a representative of the Federal Pure Food and Drugs Department. In the course of our conversation he related somewhat of the difficulties attendant upon a successful prosecution of a violator of this very important law. In order to obtain a conviction it is necessary to prove not only that the product is fraudulent, in the meaning of the act, but that the manufacturer is aware that the product and the claims made for it are fraudulent! In other words, some old codger may have a firm and steadfast belief that the product he is marketing has panaceal merits, and he really believes this; therefore, a conviction is next to impossible. We have met many men from various Federal Departments (on one occasion we were picked up for having in our possession a counterfeit saw-buck) and have found them to be men of intelligence, men with whom conversation is a pleasure.

Dr. Herman Morgan, president-elect of the Indianapolis Medical Society, in commenting on the recent annual convention, said: "The past meeting probably considered more momentous questions dealing with the future welfare of the profession than any other previous meeting. Gentlemen, it may be truly said that there is a great deal of medical history in the making. The whole-hearted cooperation of every man in organized medicine is necessary in order that the history being made will reflect to the benefit of the doctors and not to a

small group of polished laymen who wish to run the doctor's affairs. Some changes may be needed in dealing with medical care; however, such a change should be directed by the profession and not by self-appointed committees."

The Washington State Medical Association has engaged the services of Mr. Jack M. Geoffrey as executive secretary for that organization. He goes to Washington directly from a service with the Research Department of the Legislative Council of the State of Kansas. In that capacity he drafted a basic science law for Kansas and had much to do with other state activities. Mr. Geoffrey is welcome into the ever increasing ranks of executive secretaries, and the Washington State Medical Association is congratulated for its forward movement. Reviewing the experiences of our own state organization, we long since concluded that all state medical organizations would do well to follow the example of Washington. There can be no question but that full time secretaries are a vital necessity in any state medical organization, and a layman will fill the bill better than a member of the profession.

Again do we direct attention to the importance of due care in the choice of officers of county medical societies for the coming year. It is imperative now that county medical societies be directed by men who have the interests of the profession at heart. Many problems which may appear to be in the distance probably will be dumped directly in our laps before the close of 1939. It is also well to remember that delegates to the Fort Wayne meeting next October will have additional problems, some of which will require much study well in advance of the meeting. If you have delegates who in the past few years have attended these annual meetings of the House and who are willing to continue in that capacity, by all means re-elect them. An experienced delegate who knows his way around is an asset in the House. One of our larger societies elects its delegates for a term of four years, a plan which we believe is good practice.

This one definitely is on the editor. Son Jim, a senior in the I.U. Medical School, handed us a paper he had written. We were at the moment packing a fishing bag preparatory to spending a week-end at an Indiana lake, so the paper was stuck into the bag. Somehow we just didn't get around to looking over any papers that trip, and upon returning home they were piled onto the "journal table" in our home, and still later they were put into a package and mailed to the headquarters office in Indianapolis. We were promptly advised that one paper in the package was an

orphan, and try as hard as we might, we could not remember from whom the paper had come, so inserted a note in the October JOURNAL, naming the paper and asking the author to claim his work. Much to our chagrin, Son Jim came to us during the convention and said, "Dad, that paper you asked about is mine!"

The problem of how to regulate "health talks" and such by members of the profession continues to be a most acute one. Not that these talks should not be made but that too often they are made by speakers who are not properly prepared for such addresses. The Executive Committee has under consideration a plan whereby talks on socialized medicine be made by men who are familiar with the question. It is suggested, and with that suggestion we most heartily agree, that speakers be trained to talk on this topic, that material be gotten together and furnished to those known to have the ability to make an interesting address, that the real facts in the matter may be presented. Too often do we learn of such an address in which the speaker evidently was at a loss to know what to say, or perhaps made statements that could not be verified. There are enough facts, facts that should be interesting to a lay audience, on which to build an address that will not only be informative but will make friends for the medical profession as well.

The October number of *The Journal of the Medical Association of Alabama* directs attention to the overuse and misuse of phenolphthalein. Long since accorded a place in the treatment of certain types of constipation, it has recently become included in innumerable laxative compounds, and many patent medicines and proprietaries depend upon its laxative action in the preparation of their compounds. The editorial discussion refers to the article of Soper¹ in which he states that over fifteen per cent of the patients coming to a gastro-enterologic clinic had been accustomed to use phenolphthalein as a laxative. Of this group a considerable number exhibited definite signs of phenolphthalein poisoning. He further declares that this drug is definitely an irritant and should be used sparingly. Too often the drug is used in preparations without being listed as one of the ingredients. More than 125 patent medicines and proprietary medicines are found to depend upon this drug for laxative effect, and the writer advises a very limited use of the drug.

Press reports indicate that the U.S. Attorney General intends to force the issue in the matter of a grand jury investigation of organized medicine,

¹ Soper: *Am. Jour. Digestive Dis.* 5:297, 1938.

in spite of the fact that the American press was almost a unit in denouncing such intentions. It was hoped that after the matter had been thoroughly aired it would be dropped, but apparently such is not to be the case. Perhaps it is just as well that the issues be clearly set forth now. The proponents of socialized medicine have hailed this investigation with glee; they feel that at last the subject will be thoroughly investigated and that their position will be better entrenched thereby. The medical group will be glad to learn just how far it may go in the standardization of practice, and to what degree it may enforce regulatory measures designed to control the conduct of members of medical organizations, and how far they may extend their efforts to set standards for hospitals. It is more than odd that our group should be singled out from all the other groups that have endeavored to create some measures of control. As we have said, it is reasonable to suspicion that our position has been assailed for the purpose of furthering the desires of a certain group to bring squarely before the American public the question of socialized medicine. If our surmise is correct, then we shall welcome such an investigation. It is high time that this matter be settled once and for all. We want to know where we stand and just what to expect in the future. We may be optimistic, but it is our present belief that when the issues shall have been clearly presented, and the American Medical Association will see to that, we will emerge from the battle with our colors aloft. We can not conceive of a court decision to the contrary.

Physicians find it difficult to differentiate chicken pox from mild smallpox. Bush¹ says that the diagnostician may be guided by the following points: (1) The pustule of smallpox is multilocular and that of chicken pox is unilocular. If in doubt about the diagnosis, puncture the pustule with a sterile needle. If it is chicken pox, there will exude a drop of clear serum, the pustule will collapse and the covering will drop down flat. If it is smallpox, there will exude a drop of fluid, but the pustule continues to stand up "like a knot on a log." (2) The pustules of smallpox are always irregularly round in shape. On the contrary, many of the pustules in chicken pox will be found elongated and will present other irregularities in shape. (3) Smallpox pustules are always most abundant on the face and hands and that portion of the body exposed to the air. Chicken pox pustules are more abundant on the back and on that portion of the body covered by the clothing.

The other day there came into our office a sleek individual with the announcement, "I am buying

doctor's samples." We looked him over for a moment, trying to think of some forgotten expletive that might fit such a person. As we recall, we said to him, "That is a fine business to be in; you should be ashamed of yourself; get the Gehenna out of here!" And out he got. We thought, after the airing this nefarious practice had had some few years ago, that it had died out, but evidently we were wrong. There can, of course, be no question but that this sort of thing is a terrible reflection upon the profession. Long ago we called attention to the fact that not only did these leeches, these worse than parasites, call upon the medical profession but that they solicited the office secretaries, promising them rewards of boxes of candy, silk hose, etc., if they but saw to it that advertisements offering free samples were answered. Further, we are of the opinion that any physician who sells these samples is about as low as the buyer thereof.

Press reports to the effect that the Indiana State Bar Association is concerned over the problem of "ambulance chasing," a practice as old as the ambulance itself, have come to the editorial desk. This is the first time that we have known attention to be called by the Bar Association to this unsavory practice. It has been discussed in local circles on many occasions but the discussion usually ended with, "It is just one of those things," and nothing was done about it. An exceedingly reprehensible practice, ambulance chasing can and should be stopped. The remedy is in the hands of the Bar Associations over the State. Simultaneously the activities of the "chasing ambulance" should be curbed. The owner of the ambulance, equipped with short-wave radio, who hears and answers all police calls, often arriving at the scene of the reported accident long before the police detail gets there, is decidedly a nuisance. Many such cases represent nothing more than a "b. f.," newspaper parlance for a slight collision resulting in nothing more serious than a bent fender, but the ambulance owner who makes it his business to answer all such calls frequently finds or makes trouble that results in a "case" for himself. These are unnecessary evils.

How a busy physician finds time to write a book is almost beyond comprehension, yet American literature teems with offerings by members of our profession in this and other countries. The past few years have brought an unusual number of thoroughly readable and worthwhile books from the pens of doctors. Two of the recent additions to this group are "The Horse and Buggy Doctor," by Dr. Arthur E. Hertzler of Kansas, and "Hatching the American Eagle," by our own Dr. John F.

¹ Bush, I. J.: Smallpox. *Southwestern Medicine*. Volume 18 (Jan.) 1934, pp. 17-20.

Barnhill, more familiarly known as "Uncle Jeff" to hundreds of his former students. The Hertzler book is biographical, portraying the experiences of a country doctor who surmounted innumerable difficulties and rose to a high place in the councils of his profession. Written in a style that makes for easy reading, it is a fountain of epigrams well worth remembering. His concluding chapter, "Medicine As It Is, Today," is a monumental piece of literature well worth any physician's time to read. Dr. Barnhill's book is a narrative depicting the experiences of a young man who lived in Philadelphia before the Revolutionary War. There is, of course, a bit of romance threading its way through the story which adds to the enjoyment of the book. The friendship of this young man with "Uncle Ben" Franklin affords opportunity for a portrayal of the many anecdotes that materially add to our lore concerning this great man. Historically correct, the book adds much to our history of the Revolution, and the conduct of that great war. General Washington is portrayed for what he really was—a great man of his period. Seldom does one find two books so entertainingly written and at the same time adding to our store of useful information. They are recommended as valuable additions to the library of every physician.

The best vaccination dressing is none at all. The vaccination site should be kept cool and dry, to permit rapid formation of a firm crust which is the best protection, and to avoid maceration and rupture of the vesicle. If necessary to prevent soiling of the clothing, a fold of sterile gauze may be attached to the garment, not to the skin. In the event of an adventitious infection, a few days of antiseptic dressings may be required.

The diagnosis of smallpox may often be very difficult. The most important diagnostic points are distribution of the eruption over the body surface, character of the individual lesions, course of the disease, and laboratory tests. Smallpox favors surfaces exposed to irritation, such as prominences and extensor surfaces, and tends to avoid protected surfaces; the forearms and wrists usually have a thicker eruption than the upper arms; the eruption usually is most abundant on the face, most scanty on the abdomen and the chest, more abundant on the back than on the abdomen, and more abundant on the shoulders than across the loins, and on the chest than on the abdomen. Smallpox is a general disease, and the eruption is symmetrical and not local, except in unusual cases with scant lesions localized by irritation. In attempting diagnosis, the entire body should be uncovered and examined as a whole, and in a good light.

The United States Public Health Service has published a pamphlet by Dr. J. P. Leake, Medical Director, U.S.P.H.S., (reprint number 1137 from Public Health Reports) on "Questions and Answers on Smallpox and Vaccination" which would be helpful to any physician and to any speaker on the subject. It enumerates objections to vaccination on the leg, why it is inadvisable to apply a vaccination dressing, how various reactions following smallpox vaccination may be differentiated, what untoward results may be looked for, information in regard to vaccine, contraindications to vaccination, and why vaccination alone is not a sufficient weapon for combating smallpox. The pamphlet is obtainable from the Superintendent of Documents, Washington, D.C., at a cost of five cents. Several of the notes in regard to smallpox published in this issue have been taken from this pamphlet.

An English journal which calls itself "The Economist" ends a short article for July on "Doctors and the Public" with, "The doctors will enjoy the respect of the public to precisely the same degree that they do not behave like a commercial vested interest." It is said the whole world loves a lover but apparently if any such regard is held for the doctor in this country as in Great Britain, it is a very special type of doctor. He is the country or city practitioner with a full beard who answers all calls day and night, keeps no books, sends no bills, dies at fifty-five of a coronary occlusion and leaves to his wife and children a doubtful future. A physician has no right, it seems, to watch after his own interests and make himself an income sufficient to take care of his overhead and have a little left over for life insurance. Strangely, no patient, even if he doesn't intend to pay, wants to have a doctor drive up to his place in a jalopy car. His doctor must maintain a good looking car and a properly furnished office. However, if such is the appearance of prosperity, the patient figures that the doctor must not need the money and worries not when he pays. The public has taken to itself the picture of the self-sacrificing, charitable physician and does not care to lose it. This is proper and we as physicians should do our best to maintain this picture of charitable self-sacrifice, but we have a right and a duty to be practical business men as well. Recently a physician told of meeting a nurse who had been with him on an obstetrical case many months previously. She asked, "Doctor, did you ever get any pay for that case I helped you with last year?" "No!" was his reply. "I haven't heard from them since. Did you get your money?" "No, doctor, I didn't either," she answered. "And I heard later that the husband was worried as to whether you got home all right. It seems that while we were in the house delivering the baby, he was outside siphoning the gasoline out of your car!"

Under the Capitol Dome

NEW STATE BOARD OF HEALTH BUILDING

Construction on the new office building of the Indiana State Board of Health, located at the Indiana University Medical Center, has been started. Dr. Verne K. Harvey, board secretary, said it was hoped to have the structure completed by the middle of next summer.



Architect's drawing of the State Board of Health building.

The new building, which will occupy the center of the medical unit, will be three stories in height with basement and will be of modern re-inforced concrete construction with buff brick exterior. Trimming will be of Indiana limestone. The building will be 180 feet long and fifty feet wide. The interior will be built for utility, with partitions and outside office walls of glazed tile. Ceilings will be of smooth concrete from the floor above. Offices will be acoustic treated.

Laboratories of the health department will be housed on the top floor. The first and second floors will be used for office space. The vital statistics division will be housed in one wing of the basement, and the shipping department in the other wing.

The contract price for the building, which will be financed by the state and Federal governments, will be \$307,000. The recent special session of the Indiana General Assembly appropriated a total of \$325,000 for the building. Engineering and architects' expenses and other items incidental to the construction will be taken from the difference between the contract price and the appropriation. The building was designed by Joe H. Wildermuth and Company of Gary, architects. The general contract for the construction was awarded to the Service Construction Company of Indianapolis.

DATA ON CONDITIONS OF PERSONS ADMITTED TO STATE REFORMATORY AND WOMAN'S PRISON

Interesting data on the physical and mental condition of persons committed to the Indiana State Reformatory at Pendleton and the Indiana Woman's Prison in Indianapolis is given in the annual

reports of these institutions recently issued for the fiscal year which closed June 30.

In the report from the woman's prison, Dr. Fer-nande H. Luck, institution physician, said: "In comparing statistics with those of 1937, it is seen that the number of syphilitic treatments is increasing. Six hundred and sixty-two were given in 1937 and 971 in 1938. It makes one wonder whether syphilis is more prevalent or whether it is coming out in the open more than formerly.

"Since the passage of the Venereal Disease Act, women are being committed to the Woman's Prison for the violation of said act. Study of the cases reveals that some of them have not really violated the law in any way, but because they show a four-plus Wassermann, that seems to be enough." Eleven women were committed during the year for violating the venereal disease act. There were a total of 249 women admitted as prisoners during the year.

At the state reformatory, a total of 882 men, under 30 years of age, were received on commitments from courts. Of these, 784 were white; 96 colored, 2 of other races.

The report classified the mental condition of those received during the year as follows: good, 279; fair, 541; poor, 49; very poor, 13.

The physical condition was reported as: good, 846; fair, 33; poor, 3.

Investigation revealed that only six used narcotics. A total of 466 used alcohol, and 416 did not. A total of 376 of the prisoners were employed at the time the crime was committed, and 506 were idle.

The report also contained a study of the places where the prisoners were reared. It showed that 132 were brought up in rural areas; 42 in cities under 5,000 population; 373 in cities of over 5,000 population, and 335 in both rural and urban districts.

Heredity of the prisoners was shown as follows: good, 571; fair, 288; bad, 23. Home environment was classed: good, 179; fair, 635; bad, 68.

Of those committed, 623 were sober at the time they committed their crimes; 132 were drinking, while 127 were intoxicated. There were 393 church members admitted during the year and 489 non-members of churches.

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, and four other officials of the department attended a meeting of the American Public Health Association in Kansas City, Mo., October 25 to 28. Others who attended the conferences were B. A. Poole, chief engineer; Miss Eva McDougall, chief of the bureau of public health nursing; Dr. Howard B. Mettel, chief of the bureau of child and maternal health, and H. M. Wright, chief of the bureau of vital statistics.

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION — 1938

Following is a list of members of the Indiana State Medical Association which includes the names of all those who were members on November 21, 1938. Membership established after that date could not be included in this issue of THE JOURNAL.

Members who reside in one county and hold membership elsewhere are listed under the counties in which they reside.

Names of members who have died during the

year do not appear on this list.

The letter (H) following a name indicates that the physician is an honorary member of his local society and of the Indiana State Medical Association.

The cooperation of members in reporting any errors found in this list to THE JOURNAL, 1021 Hume-Mansur Building, Indianapolis, will be very much appreciated.

ADAMS COUNTY

Beane

Ernest Franz
Myron Habegger
D. D. Jones
H. O. Jones
Amos Reusser

Decatur

S. D. Beavers
R. E. Daniels
Ben Duke
Palmer Eicher
F. L. Grandstaff
G. J. Kohne
J. M. Miller
C. C. Rayl
W. E. Smith
Harold F. Zwick

Geneva

C. P. Hinchman
C. R. Price

ALLEN COUNTY

Fort Wayne

J. R. Adams
Harry Aldrich
Paul P. Bailey
P. W. Bailey
Jos. H. Baltes
Karl Beierlein
D. R. Benninghoff
Raymond Berghoff
J. E. Bickel
H. V. Blosser
W. J. Bogue
Theo. R. Borders
C. C. Bosselmann
G. T. Bowers
J. W. Bowers
Robt. H. W. Brosius
H. O. Bruggeman
Doster Buckner
E. L. Bulson
Elizabeth Burns
D. F. Cameron
W. W. Carey
Ernest R. Carlo
E. L. Cartwright
M. B. Catlett
A. R. Chambers
H. R. Chester
W. R. Clark
John E. Conley
Charles J. Cooney
Beaumont S. Cornell
C. R. Dancer
I. W. Ditton
M. H. Draper
A. H. Duemling
W. W. Duemling
K. C. Eberly
B. M. Edlavitch
L. W. Elston
Ralph W. Elston
W. F. Engelbert
C. H. English (H)
A. N. Ferguson
A. M. Fichman
M. H. Firestone
H. M. Fowler
H. W. Foy
H. W. Garton
W. F. Gessler
N. H. Gladstone
H. E. Glock

Maurice E. Glock

Wayne R. Glock

L. K. Gould

Allen Hamilton

R. L. Hane

K. C. Hardesty

L. P. Harshman

Harry C. Harvey

Morse Harrod

A. P. Hattendorf

Ruth M. Hoetzer

Jay F. Havice

S. P. Hoffman

R. E. Holsinger

Don D. Johnston

J. W. Kannel

O. T. Kidder

E. A. King

E. H. Kruse

W. E. Kruse

J. C. Lill

Maurice Lohman

A. H. Macbeth

Bertha Goba Macbeth

Edward G. McArdle

J. E. McArdle

G. A. McDowell

L. S. McKeeman

D. H. McKeeman

Edgar Mendenhall

Samuel R. Mercer

Carl G. Miller

O. J. Miller

Richard Miller

C. F. Moats

G. E. Moats

Arthur E. Moravec

L. W. Mueller

H. L. Murdock

Elmer W. Nahrwald

Carroll O'Rourke

C. B. Parker

Kermit Perrin

Milton Popp

M. F. Porter

Nelson H. Prentiss

Henry Ranke

Lyman T. Rawles

H. A. Ray

B. W. Rhamy

W. B. Rice

R. R. Richardson

Walter J. Rissing

Noah Allen Rockey

Juan Rodriguez

D. L. Rossiter

Maurice Rothberg

C. J. Rothschild

Harry W. Salon

N. L. Salon

C. A. Savage

A. R. Savage

D. W. Schafer

E. M. Schellhouse

M. F. Schick

Ed H. Schlegel

H. V. Scott

David I. Schwartz

Herbert Senseny

Lawrence Shinabery

John Short

E. C. Singer

L. E. Spomers

A. J. Sparks

Paul L. Stier

A. E. Stoler

John Swanson

J. Wiley Thimle

Walter Thornton

Phillip S. Titus

E. M. Van Buskirk

Walter H. Vance

Metodi Velkoff

J. C. Wallace

S. G. Wellay

Kathryn Whitten

Robt. W. Wilkins

Irving H. Willet

A. H. Williams

A. C. Worley

W. C. Wright

A. R. Wyatt (H)

Jas. L. Wyatt

Noah Zehr

E. S. Zweig

New Haven

J. C. Cowan

C. W. Dahling

G. A. Smith

Berneice M. Williams

Monroeville

M. R. Adams

S. E. Mentzer

H. E. Steinman

Woodburn

Edward Moser

Huntertown

A. B. Leiter

BARTHOLOMEW COUNTY

Columbus

F. J. Beck

J. W. Benham

Walter S. Fisher

P. C. Graham

Wm. Lennis Green

Robert B. Hart

H. H. Kamman

A. M. Kirkpatrick

Maurice McKain

H. J. Norton

Wm. J. Norton

Lyman Overshiner

Richard K. Schmitt

Wm. B. Sigmund

Lotta A. Suverkrup

Dorothy D. Teal

Everett W. Williams

E. U. Wood

Byron K. Zaring

Hope

J. E. Dudding

Gordon H. Haggard

L. D. Reed

Elizabethtown

O. A. DeLong

Jeneville

B. J. Teaford

BENTON COUNTY

Boswell

C. W. Atkinson

O. M. Flack

H. H. Hubbard

Fowler

W. H. Altier

D. E. Mavity

Verne L. Turley

Oxford

H. G. Bloom

E. E. Parker

Virgil Scheurich

Otterbein

Geo. W. Marsh

J. E. McCabe

Ambia

W. H. Taylor

Earl Park

Joseph E. Horton

BOONE COUNTY

Lebanon

H. A. Beck

John D. Coons

O. C. Higgins

C. G. Kern

John R. Porter

E. A. Rainey

Wm. H. Spieth

Chas. O. Weddle

Wm. H. Williams

Zionsville

L. S. Bailey

E. D. Johns

O. E. Brendel

Thorntown

Clancy Bassett

Robert Owsley

Whitestown

R. J. Harvey

Jamestown

Frank Riley

Alvin Schaaf

CARROLL COUNTY

Camden

Eva Kennedy

Charles Wise

Delphi

George D. Beamer

C. E. Carney

A. C. Clauser

C. C. Crampton

Hubert Gros

Flora

E. H. Brubaker

Arthur Richter

Burlington

J. R. McLaughlin

Burrows

Geo. W. Wagoner

Rockfield

H. Y. Mullin

CASS COUNTY

Logansport

C. A. Ballard

W. E. Barnett

J. H. Barnfield

J. C. Bradfield

B. W. Egan

E. L. Hedde

W. R. Hickman

Marian Hochhalter

W. A. Holloway

W. W. Holmes

Katherine Jackson

Thomas L. Keefe

J. B. Maxwell

C. H. McCully

M. A. McDowell

F. T. O'Leary

Earl Palmer

J. H. Reed

Joseph Rubsam

Foss Schenck

Harry Shultz

Milton B. Stewart

F. W. Terlinger

H. D. Tripp

Charles L. Viney

C. L. Williams

Paul D. Williams

P. H. Wilson

Galveston

C. T. Dutches

Royal Center

Russell Rollins

W. K. Newcomb

Twelve Mile

Donald L. Miller

Walton

E. P. Flanagan

E. A. Spohn

Young America

D. E. Lybrook

CLARK COUNTY

Jeffersonville

J. H. Baldwin

Ralph Bruner

E. P. Buckley

Austin Funk

Nathaniel C. Isler

H. H. Reeder

William M. Varble

H. R. Wilber

Sellersburg

Samuel S. Foss

A. C. Vandevent

Charlestown

T. J. Marshall

New Washington

R. S. Taggart

CLAY COUNTY

Brazil

CLINTON COUNTY

Frankfort
F. A. Beardsley
M. F. Boulden
C. A. Burroughs
A. G. Chittick
C. B. Compton
T. A. Dykhuizen
Alexander Hamilton
R. A. Hedgecock
W. W. Jones
C. A. Robison
Hollace R. Royster
Benson Ruddell
S. B. Sims
J. A. Van Kirk
B. A. Work

Colfax
W. H. Wischart

Mulberry
Nelson B. Combs
J. A. Kent

Sedalia
Ivan E. Carlyle

Rossville
John S. Ketcham

Kirklin
Wm. C. Mount

Michigantown
A. A. Williamson

CRAWFORD COUNTY

English
N. E. Gobbel
G. B. Hammond

Marengo
Jesse Benz

Milltown
J. J. Johnson

DAVISS MARTIN COUNTRIES

Loogootee
Wm. Gilkison
Emory B. Lett
J. F. Michaels
J. W. Strange

Odon
I. E. Bowman
Henry G. Coleman
Jerome DeMotte

Shoals
J. S. Gilkison
E. E. Long

Washington
N. Maude Arthur
Arthur G. Blazey
B. O. Burress
C. P. Fox
Clair Ingalls
H. B. Lindsay
Wm. C. McKittrick
S. L. McPherson
A. A. Rang
E. Brayton Smoot
H. C. Wadsworth

Burns City
T. A. Hays

Elnora
Mac Guyer Porter
J. R. Rohrer

Plainville
D. H. Swan

DEARBORN-OHIO COUNTRIES

Aurora
Wm. F. Duncan
J. K. Jackson
J. M. Jackson
C. W. Olcott
O. H. Stewart
James F. Treon
E. R. Wallace

Lawrenceburg
E. P. Drohan
A. T. Fagaly
Wm. J. Fagaly
Edwin L. Libbert
J. M. Pfeifer
G. F. Smith
F. A. Streck

Rising Sun
Geo. H. Hansell
C. N. Manley

Guilford
John E. Elliott

DECATUR COUNTY

Greensburg
P. C. Bentle
R. M. Blemker
W. C. Callaghan
F. C. Denny
H. S. McKee
C. C. Morrison
J. T. Morrison
Charles Overpeck
E. E. Riley
I. M. Sanders
B. S. White (H)

Letts
D. D. Dickson

Millhouses
J. W. Herr

Adams
M. A. Tremain

Clarksburg
John E. Fisher

St. Paul
H. E. Harkcom

Westport
Chas. Wood

DEKALB COUNTY

Auburn
H. M. Covell
L. N. Geisinger
D. M. Hines
A. V. Hines
Harold Nugen
J. A. Sanders
Bonnell M. Souder
C. S. Stewart
Willard W. Swarts

Butler
Clayton B. Hathaway
W. F. Shumaker
Chas. Weirich

Garrett
J. E. Douglas
M. E. Klingler
M. O. Klingler
R. A. Nason
D. M. Reynolds
W. G. Symon
J. W. Thomson

Waterloo
E. A. Ish
J. P. Showalter

DELAWARE-BLACKFORD COUNTRIES

Eaton
G. F. Ames (H)
J. M. Atkinson

Hartford City
Wendell W. Ayres
Geo. H. Dando
James Dodds
J. W. Morris
Guy A. Cowsley
Bryce P. Weldy
L. E. Werry

Montpelier
C. J. Aucreman
T. J. McKean
F. M. Reynolds

Muncie
Clay A. Ball
Roscoe H. Beeson
Margaret F. Benjamin
Henry E. Bibler
E. V. Boram
Chas. L. Botkin
John H. Bowles
Karl T. Brown
Rollin H. Bunch
R. M. Butterfield
E. H. Clauser
J. H. Clevenger
R. E. Cole
Nila Covalt
Donald A. Covalt
H. A. Cowing (H)
Elmer T. Cure
E. C. Davis
O. M. Deardorff
J. Frank Downing
F. W. Dunn
O. A. Hall
T. R. Hayes
F. E. Hill
Howard E. Hill
Robert Hill
Anson G. Hurley
A. T. Kemper

F. E. Kirshman
Jules La Duron
C. A. Leatherman
R. M. McMichael
T. J. Mansfield (H)
L. R. Mason
C. E. Miller
W. J. Molloy
L. G. Montgomery
Paul D. Moore
W. C. Moore
Thos. R. Owens
Wm. J. Quick
A. C. Rettig
M. G. Schulhof
J. C. Silvers
J. M. Silvers
C. E. Spurgeon (H)
W. A. Spurgeon
C. J. Stover
E. F. Tindal
Robert Turner
L. O. Walters
John H. Williams
Amelia T. Wood
Gerald S. Young

Daleville
J. R. Hurley

Gaston
Fred Langsdon

Albany
K. E. Puterbaugh

Daleville
O. Arnold Tucker

DUBOIS COUNTY

Huntingburg
Chester A. Hicks
A. H. Held
H. C. Knapp
E. G. Lukemeyer
L. C. Lukemeyer
S. L. McKinney
E. F. Steinkamp
Harvey Stork

Jasper
Paul J. Blessinger
J. F. Casper
John Casper
M. C. Heck
St. John Lukemeyer
Granville Richey
Leo A. Salb

Birdseye
A. M. Zaring

Ferdinand
H. G. Backer
A. F. Gugsell

Holland
Geo. A. Held

Ireland
L. B. Johnson

ELKHART COUNTY

Elkhart
T. D. Arlook
G. E. Bowdoin
R. A. Bowman
L. M. Dedario
Fred N. Dewey
L. A. Elliott
C. F. Fleming
J. C. Fleming
Justus M. Fleming
Geo. W. Grossnickle
A. W. Hull
M. F. Hunn
Arthur W. Kistner
John W. Kistner
Elmer G. Koehler
Benj. F. Kuhn
W. C. Landis
Milo O. Lundt
I. J. Markel
H. N. McKee
S. T. Miller
Irving Mishkin
Allen A. Norris
Vernon K. Pancost
G. B. Patrick
H. C. Schlosser
M. Maywood Sears
Walter Allen Stauffer
R. B. Stout
L. Forest Swank
L. F. Swihart
D. D. Todd
K. W. Vetter
S. C. Wagner
O. E. Wilson
Jas. A. Work

Goshen
Cecil K. Bender
H. P. Bowser
Henry W. Eby
F. M. Freeman
W. R. Kelly
Martin Kreider (H)
Herbert K. Lemon
Floyd S. Martin
Malcolm E. Miller
W. B. Page
L. H. Simmons
H. E. Vanderbogart
G. A. Whippy
Albert C. Yoder
Ralph H. Young

Middlebury
M. A. Farver
Melvin Teters

Nappanee
Henry Defrees
R. A. Fleetwood
Melvin Delbert Price
W. A. Price
J. S. Slabaugh
Lotus M. Slabaugh

Wakarusa
Chas. L. Amick
F. I. Eicher

New Paris
E. D. Stuckman
Charles Eisenbeiss

Bristol
E. G. Neidballa

FAYETTE-FRANKLIN COUNTRIES

Brookville
W. A. Foreman
E. M. Glaser
H. N. Smith

Connersville
L. N. Ashworth
Irvin E. Booher
R. H. Elliott
Stanley Gordin
Stanton E. Gordin
Albert F. Gregg
W. A. Kemp
J. S. Leffel
H. C. Metcalf
R. D. Morrow
Francis Mountain
H. W. Smelser

Oldenburg
Geo. Obery

Glenwood
Wm. R. Phillips

FLOYD COUNTY

New Albany
A. M. Baker
James W. Baxter
J. W. Baxter, Jr.
S. M. Baxter
J. E. Bird
C. E. Briscoe
D. F. Davis
Parvin Davis
Geo. H. Day
W. F. Edwards
W. H. Garner
John P. Gentile
John F. Habermel
W. A. Hall
R. W. Harris
A. P. Hauss
Chas. K. Kincaid
Chas. P. Leuthart
P. R. Pierson
Gretchen I. Polhemus
A. N. Robertson
S. T. Rogers
P. H. Schoen
H. B. Shacklett
F. T. Tyler
Harry Voyles
Wm. W. Weaver
W. C. Winstandley
M. F. Wolfe

Georgetown
H. K. Engleman

Galena
E. L. Sigmon

FOUNTAIN-WARREN COUNTRIES

Attica
J. Roy Burlington
James C. Freed

Albert C. Holley
A. R. Kerr
Lee J. Maris
Covington
J. W. Aldridge
Earl E. Johnson
Simeon Lambright
Alva Spinning
L. R. Stephens

Kingman
A. L. Ratcliff
B. J. Smith

Williamsport
S. S. DeLancey
Margaret T. Ower
G. S. Porter
T. E. Ward

Hillsboro
E. G. Bounell

Pine Village
Geo. W. Dewey

Veedersburg
C. B. McCord
Jno. B. Owens

Wallace
Hubert M. Rusk

West Lebanon
Richard Stephenson

Kramer
Clara S. Eirley
John H. Hewitt

FULTON COUNTY

Rochester
E. V. Herendeen
M. O. King
M. E. Leckrone
H. W. Markley
Mark M. Piper
C. L. Richardson
Dean K. Stinson

Fulton
F. C. Dielman

Akron
C. L. Herrick
Virgil Miller

Kewanna
L. E. Kelsey
Kenneth Kraning

Athens
A. E. Stinson

GIBSON COUNTY

Haubstadt
Austin F. Marchand
Edwin V. Marchand
V. H. Marchand
Harold G. Petitjean

Oakland City
C. M. Clark
J. W. McGowan (H)
E. R. Ropp
R. W. Wood

Owensville
G. B. Beresford
J. R. Montgomery
Karl S. Strickland

Princeton
H. H. Alexander
O. T. Brazelton
Orville M. Graves
M. P. Hollingsworth (H)
Virgil McCarty
R. S. McElroy
Chas. A. Miller
J. L. Morris
A. H. Rhodes
W. B. Wood
A. L. Ziliak

Hazleton
H. M. Arthur

Patoka
M. L. Arthur

Fort Branch
B. C. Gwaltney

GRANT COUNTY

Fairmount
Ralph H. Beams
Z. T. Hawkins
Glenn Henley
L. D. Holliday

Marion
Charles F. Abell
W. T. Bailey
Asa W. Bloom
Grace B. Royer

W. W. Bourke
Robert F. Braunlin
W. H. Braunlin
Robert McD. Brown
A. D. Burge
V. V. Cameron
B. C. Dale
E. C. Daniels
G. R. Daniels
A. T. Davis
M. S. Davis
G. G. Eckhart
L. H. Eshleman
W. A. Fankboner
Pierre J. Fisher
Max Ganz
H. R. Goldwaite
A. D. Huff
Frank J. Imburgia
R. W. Lavengood
Ralph E. LeMaster
Geo. Leventhal
M. J. Lewis
Harold E. List
J. F. Loomis
Eleanor McIlwain
Robert McIlwain
J. D. McKay
H. A. Miller
C. J. Overman
Nettie B. Powell
Mowey Presberg
F. J. Price
Sidney Price
L. L. Renbarger
G. G. Richardson
J. A. Richey
W. Y. Seymour
E. M. Trook
Samuel Weinberg
Jonesboro
Russell Baskett
Gas City
L. H. Conley (H)
Leon J. Garrison
Fred Tavenner
Van Buren
John E. Derbyshire
H. W. Nyce
Swayzee
P. C. King
Wm. S. Resoner
Upland
E. C. Taylor

GREENE COUNTY

Bloomfield
King L. Hull
Mathias S. Mount
H. B. Turner
F. A. VanSandt
Linton
Frank A. Bailey
W. F. Craft
C. C. Hamilton
Geo. C. Porter
B. B. Raney
Worthington
J. W. Clifford
George E. Moses
Newberry
Luther Hamilton
Jasonville
Carl M. Porter
Sam Rotman
Lyons
J. S. Simons

HAMILTON COUNTY

Carmel
Ross A. Cooper
C. M. Donahue
Cicero
E. D. Havens
Russell E. Havens
C. H. Tomlinson
Noblesville
J. E. Hanna
R. F. Harris
Sam W. Hooke
Haldon C. Kraft
Ray W. Shanks
J. D. Sturdevant
Sheridan
I. W. Davenport
J. W. Griffith
A. C. Newby
J. L. Reck
E. M. Young

Westfield
Andrew P. Connoy

Arcadia
Frank Rodenbeck

HANCOCK COUNTY

Fortville
Jas. B. Ellingwood
Jesse E. Ferrell
Samuel W. Hervey
Stewart Slocum
Hugh K. Navin

Greenfield
J. L. Allen
Ralph N. Arnold
C. H. Bruner
Chas. Milo Gibbs
Oscar Heller
R. E. Kinneman
L. B. Rariden
James R. Woods

New Palestine
W. H. Larrabee
E. E. Mace
Thomas A. Pierson

Wilkinson
E. R. Gibbs
Charles Titus

Charlottesville
W. R. Johnston

HARRISON COUNTY

Corydon

W. E. Amy
F. M. Applegate
Carl E. Dillman

Crandell
G. D. Baker

Elizabeth
Fred Bierly

Ramsey
L. F. Glenn

Mauckport
Alfred Mathys

Lanesville
E. W. Murphy

HENDRICKS COUNTY

Brownsburg
Mloyd E. Foltz
A. N. Scudder

Danville
Charles H. Ade
L. W. Armstrong
Mount E. Frantz
Joseph W. Gibbs
I. H. Grimes
W. T. Lawson (H)

Plainfield
Milo M. Aiken
H. T. Moore
C. B. Stafford
C. B. Thomas

Coatesville
W. J. Fuson

Clayton
Rilus E. Jones

North Salem
E. Ray Royer
O. H. Wiseheart
Robert Wiseheart

Pittsboro
O. T. Scamahorn

Henry County
Knightsdown
J. Leo Bartle
F. B. Call
Jewis E. Jolly
O. H. Rees
John Ivan Waller

Middletown
R. D. Arford
Farrol Drago

Newcastle
Joseph H. Stamper

R. L. Amos
C. C. Bitler
James G. Bledsoe
C. E. Canaday
E. S. Ferris
B. L. Harrison
W. C. Heilman
G. E. Itermann
W. U. Kennedy
H. H. Koons
J. H. McNeill

Robert A. Smith
Walter M. Stout
C. E. Thorne
J. A. Tully
W. C. Van Nuys
E. K. Westhafer
D. S. Wiggins
George Wiggins
W. W. Wright

Mt. Summit
L. C. Marshall

Blountsville
Paul Marsh

Lewisville
Marion R. Scheetz

Spiceland
W. S. Robertson

Shirley
Ralph Wilson

HOWARD COUNTY

Kokomo
C. J. Adams
Elton R. Clarke
R. A. Craig
F. S. Cuthbert
G. N. Druley
P. W. Ferry
W. W. Gipe
W. H. Harrison
L. R. Knepple
E. F. Kratzer
B. D. Lung
R. E. McIndoo
Wilbur J. Marshall
Will J. Martin
J. A. Meiner
D. A. Morrison
W. R. Morrison
F. N. Murray
F. M. Olmstead
Durwood W. Paris
John P. Pennell
L. M. Reagan
H. M. Rhorer
R. P. Schuler
R. F. Scott
E. M. Shenk
Jesse S. Spangler
Omer Woolbridge

Greentown
C. F. Kercheval
H. B. Shoup

Russavielle
R. M. Evans

Huntington County
Huntington
Harold S. Brubaker
Stanley M. Casey
A. C. Chenoweth
Myers B. Deems
M. G. Erehart
J. B. Evison
Reuben F. Frost (H)
B. H. B. Grayston (H)
Paul M. Gray
F. W. Grayston (H)
Wallace S. Grayston
James M. Hicks
R. G. Johnston
Robert Meiser
F. B. Mitman
Grover Nie
G. G. Wimmer

Markle
A. M. Hasewinkle
A. H. Northrup

Roanoke
O. P. Bigelow

Warren
Claude S. Black
L. W. Smith

Jackson County
Crothersville
Wm. K. Adair
Frank B. Bard
P. A. Kendall

Seymour
W. Durbin Day
C. E. Gillespie
Harold P. Graessle
G. H. Kamman
Wm. F. King
Guy Martin
Harold E. Miller
Louis Osterman
D. L. Perrin

W. H. Shortridge
E. D. Wright

Brownstown
Chas. L. Ackerman
G. R. Gillespie
D. J. Cummings

Freetown
T. E. Conner

Cortland
J. M. Jenkins

Medora
Neal Matlock

JASPER-NEWTON COUNTIES
Goodland
C. C. Bassett
Arthur L. Cramp
J. F. Openshaw
Ralph H. Ruhmkorff

Kentland
O. E. Glick
W. C. Mathews
G. H. VanKirk

Morocco
G. D. Larrison
F. L. Morehouse
L. H. Recher

Rensselaer
H. E. English
M. D. Gwin
C. E. Johnson
Chas. Keith Hepburn
A. R. Kresler
I. M. Washburn

Brook
W. G. Pippenger

Remington
A. P. Rainier
Frank G. Sink

Lake Village
Raymond Merchant

JAY COUNTY
Dunkirk
E. C. Garber
E. H. Hall
Don P. Murray

Portland
A. C. Badders
George Cring
Forrest Keeling
O. L. Meyer
Mark M. Moran
G. L. Perry
W. D. Schwartz
B. M. Taylor

Pennville
H. J. Hiestand

Salamonia
H. H. Jones
J. J. Kidder

Redkey
John Lansford

JEFFERSON COUNTY
Madison
A. G. W. Childs
E. C. Cook
Chas. W. Denny
Anna Goss
N. A. Kremer
George A. May
W. A. Shuck
E. C. Totten
Cscar A. Turner
S. A. Whittitt

North Madison
C. C. Copeland
G. A. Estel
Guy W. Hamilton
James W. Milligan
Francis Prenatt

Hanover
Carl Henning

JENNINGS COUNTY
North Vernon
John H. Green
W. L. Grossman
D. W. Matthews
D. L. McLaughlin
W. H. Stemm

Deputy
D. W. Robertson

Scipio
W. L. Wilson

JOHNSON COUNTY

Franklin
Florence Blackford
Harry Murphy
Walter L. Porteus
O. A. Province
A. W. Records
R. C. Wilson

Edinburg
J. V. Baker
J. Porter Myers
Wm. E. Sutton

Whiteland
D. L. Phipps

Greenwood
J. A. Craig
C. E. Woodcock

Trafalgar
F. P. Albertson

KNOX COUNTY

Bicknell
Maurice S. Fox
E. H. Tade
Guy Wilson

Vincennes
R. M. Anderson
P. B. Arbogast
W. A. Bailey
E. W. Beckes
N. E. Beckes
G. W. Boner
C. L. Boyd
S. L. Carson
R. B. Cochran
M. L. Curtner
E. T. Edwards
V. A. Funk
L. L. Gilmore
J. M. Goldman
H. W. Held
M. H. C. Johnson
A. B. Knapp
H. D. McCormick
R. C. Meyer
R. G. Moore
S. A. Prather
J. P. Ramsay
James F. Reilly
D. H. Richards
Helen M. Richards
William Schulze
K. L. Shaffer
E. F. Small

Decker
Loren Hoover

Sandborn
E. N. Johnson

Freelandville
M. M. McDowell

Edwardsport
J. L. Reeve
J. A. Scudder

Monroe City
Milton Omstead

KOSCIUSKO COUNTY
Warsaw
G. W. Anglin
J. R. Baum
C. C. Dubois
Max D. Garber
Geo. L. Kress
A. C. McDonald
S. C. Murphy
C. H. Richer
Geo. H. Schlemmer
W. Bert Siders

Claypool
H. F. Steele

Leesburg
C. E. Thomas
Everett W. Thomas

Mentone
T. J. Clutter
Dan L. Urschel

North Webster
L. A. Laird

Piercetown
G. N. Herring
T. S. Schuldt

Silver Lake
John L. Hillery

Syracuse
Fred O. Clark
C. R. Hoy

LAGRANGE COUNTY**LaGrange**

H. G. Erwin
H. F. Flannigan
C. H. Schulz
W. A. Van Nest

Wolcottville

J. M. Kercheval
B. H. Pulskamp

Topeka

W. O. Hildebrand
Frank M. Nichols

Howe

A. A. Wade
F. C. Wade

Shipshewana

E. B. Norris

LAKE COUNTY**Crown Point**

Philip H. Becker
J. P. Birdzell
A. H. Farley
D. E. Gray
W. F. Houk
J. W. Iddings
J. O. Parramore
C. R. Pettibone
W. H. Troutwine
William D. Weis

East Chicago

G. F. Bicknell
Chas. S. Boyd
Arthur D. Brody
F. F. Boys
Benj. B. Cohen
A. V. Cole
E. R. Cotter
Thos. F. Cotter
A. J. Dainko
R. J. Dasse
Chas. J. Donegny
H. C. Ernst
J. C. Fleischer
Wm. G. Grosso
R. C. Hamilton
D. R. Johns
Lazar Josif
Adolph G. Kammer
J. E. Komoroske
R. J. Liehr
Ora L. Marks
D. F. McGuire
F. H. Mervis
J. S. Niblick
Jas. J. O'Connor
L. J. Ostrowski
H. M. Pritchard
E. J. Purchla
Siegmund Reich
A. G. Schlieker
Frank R. Sendra
Paul B. Smith
J. A. Teegarden
Hugh A. Vore
A. L. Yoder
J. M. Zivich

Gary

W. P. Alexander
C. O. Almquist
George D. Anthoulis
Bellfield Atcheson
H. M. Baitinger
W. M. Behn
C. H. Bendler
S. R. Best
L. F. Bills
R. N. Bills
Carl Boardman
C. C. Brink
David B. Brown
J. B. Burcham
R. F. Carmody
J. J. Chevigny
J. A. Craig
S. H. Crossland
L. J. Danielecki
C. A. DeLong
M. H. Derian
A. J. Dian
J. C. Donchess
F. M. Doty
J. R. Doty
J. S. Duncan
R. A. Elliott
H. M. English
E. C. Gaebe
G. W. Gannon
Richard Gannon
Antonio Giorgi
Adolph Goldstone
Joseph Goldstone
G. S. Greene

A. F. Gregoline
B. F. Gumbiner
F. A. Gutierrez
C. M. Harless
A. T. Harris
B. W. Harris
R. M. Hedrick
M. Herschleder
Harry L. Kahan
A. M. Kan
Mikes N. Kalavios
F. J. Kendrick
N. E. Kesperic
H. F. Kobrak
Geo. J. Kolettis
Julia G. Kuzmitz
Arnold L. Lieberman
B. W. Marshall
M. C. Marcus
J. W. Mather
F. J. McMichael
Frank W. Merritt
Ira Millmore
C. B. Nesbit
Oliver S. Olson
H. C. Parker
J. O. Puryear
P. J. Rosenbloom
Milton R. Rubin
H. J. Ryan
L. K. Ryan
Jacob Sagel
J. J. Sala
E. L. Schaible
T. J. Senese
Michael Shellhouse
E. D. Skeen
Joseph Sponder
Harry R. Stimson
C. M. Stoycoff
G. L. Verplank
James P. Vye
A. A. Watts
R. O. Wharton
J. M. White
W. J. White
O. C. Wicks
Robt. N. Wimmer
C. W. Yarrington
P. S. Yocum
G. M. Young

Hammond

D. A. Bethed
W. M. Bigger
J. T. Bolin
Fred Braginton
S. L. Brown
W. A. Buchanan
J. F. Clancy
H. G. Cole
G. M. Cook
C. H. Crews
Alice H. Davis
H. W. Detrick
H. W. Eggers
Ray Ellledge
D. C. Emenhiser
J. L. Emenhiser
N. K. Forster
P. H. Fox
F. H. Fox, Jr.
M. B. Gevirtz
H. C. Groman
E. C. Hack
A. H. Hansen
L. Dell Henry
H. S. Hicks
Andrew Hofmann
W. A. Hornaday
W. H. Howard
Robert Husted
E. S. Jones
R. W. Kretsch
Hedwig S. Kuhn
Hugh A. Kuhn
Daniel H. Lawler
A. W. Lloyd
C. A. McVey
Chas. B. Matthews
O. O. Melton
Lindsay Morrison
Richard B. Nelson
W. E. Nichols
Louis Nodinger
T. W. Oberlin
R. O. Ostrowski
Solomon V. Panares
M. J. Pasternak
C. W. Hauschenbach
A. W. Rhind
Perry Q. Row
J. Schlesinger
E. M. Shanklin
Stanley Skrentny

S. L. Stern
H. J. White

Hobart

L. E. Dupes
L. M. Friedrich
R. M. May
A. G. Miller
R. W. Kraft

Whiting

O. F. Benz
David W. Bopp
Harry Brandman
Frank R. Doll
Clementine Frankowski
Clifford M. Jones
L. T. Kudele
A. J. Lauer
Jeremiah A. McCarthy
J. A. Melyn
D. H. Rudser
Harry Silvian
Theodore J. Smith
Peter Stecy
George A. Thegze
L. J. Wisch

Lowell

Dwight Anderson
Neal Davis
Franklin Petry

Griffith

F. A. Malmstone

LAPORTE COUNTY**LaPorte**

E. L. Annis
C. E. Burleson
E. F. W. Crawford
C. B. Danruther
J. H. Fargher
R. B. Jones
J. N. Kelly
Robert M. Kelsey
G. W. Kimball
James Kistler
G. O. Larson
E. E. Linn
W. B. Martin
S. P. Morgan
A. C. Przednowek
W. W. Ross
A. R. Simon
R. F. Wilcox
Michigan City
T. D. Armstrong
Daniel G. Bernoske
E. G. Blinks
Harry A. Briggs
H. L. Brooks
Norman R. Carlson
S. J. Donovan
F. M. Fargher
R. A. Gardner
R. A. Gilmore
A. T. Jones
John T. Kemp
J. J. Kerrigan
R. L. Kerrigan (H)
Aimee R. Killough
George M. Krieger
F. V. Martin
J. R. Phillips
Leonard F. Piazza
J. D. Price
Nelle C. Reed
N. C. Reglien
Lawrence M. Robrock
L. E. Stephenson
Frank R. Warren
P. H. Weeks
L. A. Wilson

Westville

Warren Baker

Rolling Prairie

C. W. Brown

Hanna

H. A. Garner

Wanatah

Chas. E. Mayfield

Lacrosse

D. D. Oak

LAWRENCE COUNTY**Bedford**

L. H. Allen
Norman R. Byers
Joseph Dusard
Charles B. Emery
Chas. H. Emery
Frank D. Martin
A. E. Newland
H. C. Ragsdale

C. E. Rariden (H)
Morrell E. Simpson
Robt. B. Smallwood
John S. Woolery
R. E. Wynne

Mitchell

James D. Byrns
J. R. Hamilton
Walter C. Sherwood

Heltonville

Jasper Cain

Oolitic

Claude Dollens

Williams

J. T. McFarlin

MADISON COUNTY**Alexandria**

J. L. Carpenter
J. J. Gibson
F. G. Keller
Anthony Otto (H)
George H. Overpeck
H. C. Runyan

Anderson

C. L. Armington
John C. Armington
Robert Armington
M. A. Austin
Kenneth D. Ayres
C. H. Brauchla
E. E. Brock
Etta Charles (H)
A. W. Collins
E. M. Conrad
Rex Dixon
John C. Drake
A. W. Elsten
A. D. Erehart
H. W. Gante
F. C. Guthrie
Harry G. Hockett
Lee Hunt
Thomas M. Jones
B. A. King
Jack King
Jos. W. King
O. A. Kopp
E. D. Knight
James L. Lamey
P. T. Lamey
Sam W. Litzenberger
J. A. Long
Paul L. Long
V. G. McDonald
O. E. McWilliams
Doris Meister
George B. Metcalf
W. M. Miley
George Moore
Paul Leon Nelson
L. L. Nesbit
D. S. Quicquel
Guy E. Ross
Clarence V. Rozelle
W. L. Sharp
T. J. Stephenson
S. J. Stottlemeyer
J. R. Tracy
Milo C. Wells
G. B. Wilder
F. M. Williams
C. L. Willson
F. B. Wishard
R. O. Zierer

Elwood

Perry Cotton
J. E. Cullipher
R. N. Filiateau
H. W. Fitzpatrick
W. H. Hoppenwrath
W. M. Hoppenwrath
W. A. Laudeman
R. R. Ploughe

Frankton

J. C. Miller
Web Peck
Raymond Russell

Pendleton

E. E. Hunt
C. P. McLaughlin

Summitville

Seth Irwin
L. F. Mobley

Markleville

D. N. Conner

Lapel

John I. Rinne

MARION COUNTY**Indianapolis**

D. S. Adams
W. B. Adams
H. C. Adkins
Henry R. Alburger
Howard Aldrich
H. R. Allen
Wm. F. Allison
E. O. Alvis
E. M. Amos
D. A. Anderson
R. J. Anderson
W. S. Ankenbrock
E. G. Anthony
J. L. Arbogast
R. L. Arbuckle
Wm. E. Arbuckle
Aaron L. Arnold
Sidney S. Aronson
J. A. M. Aspy
Frederic L. Baer
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O. H. Bakemeier
James F. Balch
R. F. Banister
H. M. Banks
M. J. Barry
D. A. Bartley
G. W. Batman
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Paul Beard
T. J. Beasley
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H. F. Beckman
R. C. Beeler
L. D. Belden
Henry I. Berger
J. K. Berman
D. F. Berry
M. E. Beverland
L. D. Bibler
Charles R. Bird
John J. Boaz
E. F. Boggs
C. B. Bohner
George S. Bond
Norman R. Booher
Clga B. Booher
Daniel L. Bower
Don B. Bowers
Geo. W. Bowman
Floyd A. Boyer
John R. Brayton
Archie E. Brown
David E. Brown
Edward A. Brown
Frances T. Brown
L. W. Brown
Wendell E. Brown
J. S. Browning
Walter L. Bruetsch
Louis Burckhardt
Rose J. Buttz
E. E. Cahal
H. F. Call
J. W. Canaday
S. S. Caplin
Wayne Carson
James C. Carter
L. D. Carter
Oren E. Carter
R. S. Chappell
K. K. Chen
Fredk. D. Cheney
C. J. Clark
C. P. Clark
L. J. Clark
W. F. Clevenger
R. R. Coble
J. N. Collins
Geo. W. Combs
Elizabeth S. Conger
Jos. L. Conley
Chester C. Conway
Glenn Conway
Robert E. Conway
S. J. Copeland
M. Cornacchione
Thomas A. Cortese
Thomas E. Courtney
H. Bailey Cox
C. E. Cox
K. L. Craft
Helen L. Crawford
F. W. Cregar
Clyde G. Culbertson
Paul K. Cullen
J. M. Cunningham
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J. C. Daniel
N. Cort Davidson
John A. Davis

C. W. Day
John Day
Michael F. Dean
R. M. Dearmin
Murray DeArmond
Elan F. Deer
C. Bowen DeMotte
Dwight DeWeese
J. W. Denny
W. J. Dieter
Albert M. Donato
W. L. Dorman
Frank T. Dowd
William M. Dugan
Thomas J. Dugan
Harold Dunlap
L. M. Dunning
E. W. Dyar, Jr.
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J. H. Eberwein
C. L. Eisanman
Roy Egbert
Bert Ellis
John T. Emhardt
John W. Emhardt
L. A. Ensminger
Bernhard Erdman
Ralph V. Everly
Jos. T. Farrell
Chas. F. Ferguson
Frank B. Fisk
J. O. Flora
Harry L. Foreman
Frank Forry
D. W. Fosler
P. J. Fouts
A. G. Funkhouser
Elmer Funkhouser
R. M. Funkhouser
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Euclid T. Gaddy
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William Garner
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N. P. Graham
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Franklin T. Hallam
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E. H. Hare
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N. E. Harold
V. K. Harvey
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N. W. Hatfield
S. J. Hatfield
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Everett Hays
H. H. Heinrichs
John D. Hendricks
John W. Hendricks
Russell S. Henry
A. M. Hetherington
Walter Hickman
James M. Himler
Ulis B. Hine
Russell Hippensteel
Fletcher Hodges
Francis T. Hodges
J. Wm. Hofmann
A. A. Hollingsworth

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Robert D. Howell
Foster J. Hudson
J. E. Hughes
W. F. Hughes
L. B. Hurt
Paul T. Hurt
F. F. Hutchins
Bernard Hymen
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G. B. Jackson
J. L. Jackson
J. W. Jackson
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O. S. Jaquith
K. I. Jeffries
W. O. Jenkins
Wm. L. Jennings
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James E. Jobes
N. E. Jobes
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T. B. Johnson
Wm. F. Johnson
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Leo Kammen
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S. H. Keeney
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W. C. Kelly
V. D. Keiser
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John F. Kerr, Jr.
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E. N. Kime
Wm. E. King
J. K. Kingsbury
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Benj. Victor Klain
Geo. Kohlstaedt
Kenneth G. Kohlstaedt
Karl M. Koons
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Bennett Kraft
Herman W. Kuntz
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Leon Levi
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Goethe Link
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H. B. Long
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Oscar D. Ludwig
Emery D. Lukenbill
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Albert L. Marshall, Jr.
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R. J. Masters
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W. B. Matthew
R. O. McAlexander
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Ralph J. McQuiston
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Paul Merrell
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R. E. Mitchell
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R. M. Moore
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Herman G. Morgan
Walter P. Morton
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R. V. Myers
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Irvine H. Page
Manley A. Page
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Portia Parker
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F. L. Pettijohn
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Oscar D. Reed
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Frank P. Reid
Simon Reisler
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Ray Robertson
L. C. Robbins
Clarke Rogers

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D. Hamilton Row
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Karl R. Ruddell
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Ernest Rupel
Byron K. Rust
Martin L. Ruth
C. W. Rutherford
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Glen V. Ryan
Russell Sage
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A. J. Schneider
Carl J. Schneider
Ada E. Schweitzer
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G. W. Seaton
Herbert L. Sedam
Louis H. Segar
S. Kenosha Sessions
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Wm. Shimer
L. L. Shuler
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C. W. Siekerman
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J. S. Skobba
D. H. Sluss
J. H. Smiley
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E. Rogers Smith
Francis C. Smith
James M. Smith
Lester A. Smith
Roy Lee Smith
Wilbur F. Smith
Byron Snider
R. A. Solomon
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J. W. Sovine
Chas. R. Sowder
Alan L. Sparks
M. J. Spencer
Mary A. Spink
Urbana Spink
Russell J. Spivey
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C. A. Stayton
Brandt F. Steele
Nathan Stern
Walter Stoffler
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Roy B. Storms
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Merrel H. Taylor
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Ray Tharpe
Hugh K. Thatcher, Jr.
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Fred A. Thomas
C. F. Thompson
K. E. Thornburg
Harold C. Thornton
J. R. Thrasher
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H. F. Thurston
H. S. Thurston
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W. B. Tinsley
O. N. Torian
Richard C. Travis
H. M. Trusler
H. A. VanOsdol
C. F. Voyles
J. Thayer Waldo
E. DeWolfe Wales
F. C. Walker
Robert K. Walker
Fredk. C. Warfel
J. H. Warvel
A. P. Warman
E. S. Waymire
M. M. Weaver
John W. Webb
J. O. Wehrman
H. J. Weil

Chas. A. Weller
Joseph L. West
A. F. Weyerbacher
Homer H. Wheeler
J. T. Wheeler
Joel Whitaker
Donald J. White
John M. Whitehead
Irwin W. Wilkins
Luther Williams
E. R. Wilson
Emil G. Winter
Matthew Winters
Wm. Wise
Wm. N. Wishard
Wm. N. Wishard, Jr.
J. T. Witherspoon
George Wood
Donald E. Wood
Abram S. Woodward, Jr.
Wm. V. Woods
Cecil S. Wright
J. W. Wright
John E. Wytenbach
C. B. Yott
J. B. Young
John M. Young
Oakland
Donald W. Brodie
Morris Thomas
New Augusta
E. O. Asher
Beech Grove
R. E. Blackford
R. W. Blackford
Raymond Butler
Young D. Kim
James C. Rhea
Geo. A. Tiley
Bridgeport
F. L. Hade
Lawrence
H. W. Cox
K. H. Stephens
Southport
Morris B. Paynter
Wanamaker
George Jones
Acton
N. C. Folkening
MARSHALL COUNTY
Argos
F. H. Kelly
H. M. McCracken
Robt. B. Miller
W. C. Sarber
Culver
C. G. Mackey
Donald Reed
H. H. Tallman
Plymouth
Ida L. Eby
L. D. Eley (H)
Thomas C. Eley
C. F. Holtzendorff
C. A. Inks
P. R. Irey
F. G. Perry
May Patzer
Reynold Patzer
T. R. Possolt
Harry Knott
R. Clarence Stephens
L. W. Vore
Bremen
Wallace Buchanan
J. M. Thompson
R. H. Draper
Bourbon
Cova R. Graham
F. E. Radcliffe
Tyner
A. A. Thompson
MIAMI COUNTY
Peru
E. H. Andrews
J. B. Berkebile
E. Lee Burrous
O. U. Carl
E. A. Carlson
B. F. Eikenberry
Donald W. Ferrara
S. J. Ferrara
Cloyne R. Herd
Cecil F. Jordan
O. R. Lynch
F. M. Lynn
S. D. Malouf

O. C. Wainscott
J. E. Yarling

Amboy

E. E. Shrock

Bunker Hill

R. E. Barnett

Chili

H. E. Line

Converse

Fred Malott

A. S. Newell

Denver

C. B. Southard

Mexico

C. F. Rendel

Macy

W. K. Sennett

Miami

James B. Shoemaker

MONROE COUNTY**Bloomington**

F. H. Austin

R. C. Austin

F. H. Batman

Neal Baxter

R. M. Borland

J. P. Boulware

W. N. Culmer

R. A. Demotte

Dillon Geiger

Chas. Holland

J. E. P. Holland

J. E. P. Holland

Phillip Holland

J. E. Luzadder

Robt. Lyons

C. H. Marchant

B. D. Myers

M. F. Poland

Hugh Ramsey

Wm. C. Reed

O. F. Rogers, Jr.

R. C. Rogers

Ben R. Ross

Edith B. Schuman

V. Brown Scott

R. D. Smith

H. G. Steinmetz

Harry B. Thomas

Frank F. Tourner

W. T. Van Dament

T. L. Wilson

James W. Wiltshire

Homer Woolery

Smithville

G. L. Mitchell

MONTGOMERY COUNTY**Crawfordsville**

T. Z. Ball

G. A. Collett

Thomas L. Cooksey

Fred N. Daugherty

L. H. Davis

Fred A. Dennis

Wemple Dodds

J. B. Griffith

H. A. Kinnaman

Byron N. Lingeman

A. L. Loop

Robt. Millis

Wm. M. Mount

Robert R. Pollom

John L. Sharp

W. L. Straughn

Hawthorne C. Wallace

G. T. Williams

Darlington

J. B. Cushman

Ralph E. Otten

Ladoga

Frank T. Denny

Maurice E. Gross

Wingate

F. D. Allhands

C. B. Parker

Waynetown

H. M. Bounnell

A. S. Faulkner

New Richmond

H. D. Kindell

Waveland

Jas. Noblitt

Russellville

E. E. Richards

MORGAN COUNTY**Martinsville**

P. M. Alexander

W. C. Anderson

C. G. Bothwell

H. H. Dutton

Robert Egbert

Leon Gray

Edw. M. Pitkin

M. C. Pitkin

S. P. Scherer

Austin D. Sweet

Harvey White

H. R. Willan

Mooreville

Charles Aker

Kenneth Comer

J. E. Comer

W. J. Stangle

C. H. White

Brooklyn

L. M. Hughes

Morgantown

M. G. Murphy

NOBLE COUNTY**Albion**

Chas. M. Bowman

W. F. Carver

J. W. Morr

J. R. Nash

Kendallville

C. B. Goodwin

Richard R. Gutstein

C. F. Hardy

I. H. Lawson

F. W. Messer

C. E. Munk

Gerald Shortz

H. O. Williams

S. J. Young

Ligonier

J. B. Schutt

W. A. Shobe (H)

T. N. Siersdorfer

Q. F. Stultz

Wolf Lake

H. A. Luckey

Robt. C. Luckey

Cromwell

J. H. Nye

A. J. Rarick

Avilla

Wm. Veazey

K. D. Sneary

Rome City

August L. Fipp

ORANGE COUNTY**French Lick**

George R. Dillinger

J. R. Dillinger

C. D. Fulkerson

Orleans

Robert E. Baker

H. C. Peffer

Wm. E. Schoolfield

Oscar H. Stewart

W. S. Workman

Paoli

Ivan A. Clark

John I. Maris

S. F. Teaford

West Baden

Clarence E. Boyd

Mart Hassenmiller

H. L. Miller

Leipsic

G. G. Colglazier

OWEN COUNTY**Spencer**

M. S. Brown

Oran Kay

Robert H. Pierson

Coal City

Boaz Yocum

Patrickburg

R. H. Richards

Gosport

C. E. Stouder

Julia S. Thom

J. W. Thom

PARKE-VERMILLION**Clinton**

I. M. Casebeer

Paul B. Casebeer

Ott Casey

W. D. Gerrish

J. F. Swayne

C. M. White

I. D. White

C. M. Zink

Dana

Wm. C. Myers

A. E. Sabin

Rockville

J. R. Bloomer

T. J. Collings

E. H. Dowell

Casper Harstad

J. V. Pace

H. B. Pirkle

Cayuga

R. E. Brown

S. C. Darroah

Montezuma

R. L. Dooley

Bloomington

F. G. Green

Perryville

W. A. Johnson

Newport

J. L. Saunders

Rosedale

C. S. White

PERRY COUNTY**Cannelton**

H. R. Bush

J. H. Lee (H)

E. E. Schriefer

Tell City

Porter J. Coultas

David Dukes

Fred C. Glenn

W. T. Hargis

N. A. James

Bristow

S. L. Epple

Troy

E. R. Snyder

Leopold

J. E. Taylor

PIKE COUNTY**Petersburg**

G. A. Dickinson

J. T. Kime

A. R. Logan

L. M. McNaughton

T. R. Rice

Winslow

G. B. DeTar

Velpen

D. E. Taylor

PORTER COUNTY**Hebron**

W. C. Butman

F. J. Kleinman

Valparaiso

J. C. Brown

P. M. Corboy

Carl M. Davis

Eugene DeGrazia

C. H. Dewitt

J. E. Dittmer

A. O. Dobbins

G. R. Douglas

Ralph C. Eades

J. R. Frank

M. B. Fvte

E. H. Miller

E. H. Powell

H. O. Seipel

G. H. Stoner

Arthur J. Van Winkle

Chesterton

R. H. Axe

J. W. Dale

W. M. Parkinson

Kouts

S. E. Dittmer

POSEY COUNTY**Mt. Vernon**

W. B. Challman

C. H. Fullinwider

W. E. Jenkison

F. W. Oliphant

J. R. Ranes

New Harmony

H. E. Ropp

H. C. Riningar

Poseyville

Paul Boren

S. W. Boren

A. L. Woods

Cynthiana

S. B. Montgomery

Wadesville

Chas. Arburn

PULASKI COUNTY**Medarville**

C. E. Linton

Winamac

Thos. E. Carneal

H. J. Halleck

Monterey

A. J. Kelsey

PUTNAM COUNTY**Cloverdale**

E. M. Hurst

Greencastle

J. F. Gillespie

W. R. Hutcheson

N. S. Linquist
Merrill E. Liston
Martha B. Lyon
M. W. Lyon
C. M. Malstaff
J. E. McMeel
W. H. Mikesch
Milo Miller
William E. Miller
H. F. Mitchell
E. P. Moore
C. A. Mott
Josephine Murphy
Thomas A. Pauszek
L. E. Pennington
Veronica Pennington
Andrew Petrass
Harold D. Pyle
Herman H. Rodin
George M. Rosenheimer
Ruth F. Rasmussen
E. L. Rigley
Carl J. Rudolph
Robert B. Sanderson
Isadore Sandock
Harry H. Sandoz
Louis A. Sandoz
C. E. Savery
Keith E. Selby
C. M. Sennett
R. L. Sensenich
Anna G. Seyler
H. B. Shedd
P. G. Skillern
H. H. Slominski
R. W. Spinner
A. M. Sullivan
C. C. Terry
Ray H. Thomas
Maurice J. Thornton
P. C. Traver
Henry E. Vitou
W. G. Wegner
Agatha Wilhelm
J. L. Wilson

North Liberty

John J. Hardy

Lakeville

John T. How

Louis E. How

Walkerton

C. D. Linton

New Carlisle

J. E. Luzadder, Jr.

Osceola

H. L. Warrick

SCOTT COUNTY**Scottsburg**

T. N. Hill
Marvin McClain
Floyd Napper
J. P. Wilson

Austin

C. W. Chappell

SHELBY COUNTY**Shelbyville**

R. W. Gehres
Jewett Hord
Herbert Inlow
C. Fred Inlow
W. D. Inlow
B. G. Keeney
Samuel Kennedy
Walter McFadden
R. M. Nigh
P. R. Tindall
W. R. Tindall
W. W. Tindall

Waldron

S. B. Coulson

J. E. Keeling

Flat Rock

J. A. Davis

Morristown

Margaret L. Maisoll
V. C. Patten

Fairland

M. M. Wells

SPENCER COUNTY**Rockport**

K. C. Atchison
Eva J. Buxton
C. D. Ehrman
J. C. Glackman

Newtonville

H. T. Harter

Dale
John H. Barrow
Lamar
N. L. Medcalf
Chrisney
C. L. Springstun
Richland
W. P. Jolly
St. Meinrad
V. V. Schriefer

STARKE COUNTY**North Judson**

P. O. Englerth
Albert Fisher

Knox

J. F. DeNaut
J. R. Matthew

Hamlet

J. L. DeNaut

STEBUEN COUNTY**Angola**

Donald W. Creel
M. M. Crum
L. L. Eberhart
S. S. Frazier
W. H. Lane
O. H. Swantusch
W. F. Waller

Fremont

B. A. Blosser
Ralph Hippensteel

Helmer

R. D. Denman

SULLIVAN COUNTY**Carlisle**

J. S. Brown
Charles E. Whippis

Dugger

E. M. Deputy
F. M. Dukes

Farmersburg

Harry O'Dell
J. T. Oliphant

Shelburn

Vincent R. Lazo
J. H. Work

Sullivan

Marion H. Bedwell
J. M. Billman
C. F. Briggs
E. M. Corbin
James H. Crowder
J. R. Crowder
Paul Higbee
J. B. Maple
G. D. Scott
Irvin H. Scott
W. N. Thompson

Fairbanks

H. E. Bland

Hymera

C. U. Thralls

Merom

John W. Woner

SWITZERLAND COUNTY**Vevay**

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L. H. Bear
G. W. Copeland
G. M. Copeland
Geo. E. Ellerbrook

TIPPECANOE COUNTY**Lafayette**

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A. J. Bauer
R. H. Bayley
Harry Buhrmester
R. R. Calvert
O. U. Chenowith
Ira Cole
A. B. Coyner
W. T. Cox
F. S. Crockett
Edward C. Davidson
C. V. Davisson
G. R. Donahue
M. J. Eaton
Russell A. Flack
M. G. Frasch
Thomas G. Graham
O. E. Griest
Frank Hall

G. W. Herrold
L. J. Holladay
F. P. Hunter
Charles Hupe (H)
R. G. Ikens
Chas. B. Kern
H. E. Klepinger
Manson M. Lairy
H. J. Laws
Guy P. Levering
F. A. Loop
F. A. Loop, Jr.
H. G. Martin
D. C. McClelland
D. H. McKinney
Adah McMahan
John S. Morrison
Samuel Pearlman
F. W. Peyton
F. L. Pyke
Frank W. Ratcliff
Wm. M. Reser
F. T. Romberger
C. H. Rommel
Bertha Rose
C. L. Rowland
E. B. Ruschli
James E. Ryan
A. W. Schreiber
J. W. Shafer
L. O. Sholly
L. C. Smith
Edward Stahl
J. W. Strayer
H. N. Swezey
G. A. Thomas
Geo. R. Tubbs
E. L. Van Buskirk
Earl VanReed
W. W. Washburn
R. B. Wetherill
Oliver R. Wilson
C. M. Wray

West Lafayette

H. H. Ash
J. C. Burkle
Louise J. Meikle
S. J. Miller

Battle Ground

Frank M. Biddle

Dayton

E. E. Hamilton

Romney

O. L. McCay

E. T. Mitchell

Clark's Hill

H. M. Mugg

West Point

Ramon B. DuBois
Carl J. Trout

Colburn

Robert H. Wagoner

TIPTON COUNTY**Tipton**

A. E. Burkhardt
B. A. Burkhardt
J. V. Carter
R. L. Fullerton
H. E. Grishaw
G. H. Warme

Windfall

B. V. Chance

E. B. Moser

Goldsmith

S. M. Cotton

Kempton

J. W. Cooper
Grover Dunham
Albert E. Stouder

VANDERBURGH COUNTY**Evansville**

R. R. Acre
R. N. Adler
A. E. Allenbaugh
C. S. Baker
Herman Baker
J. S. Baker
I. C. Barclay
William E. Barnes
Bruce H. Beeler
Stella Boyd
S. L. Bryan
C. R. Buikstra
Wm. C. Caldwell
A. F. Clements
Walter R. Cleveland
Wm. F. Cleveland (H)
Herman Combs
Pearl B. Combs
John H. Combs
William L. Cole
W. H. Coleman
Earl Conover
I. E. Cottingham
Paul D. Crimm
C. W. Cullane
W. L. Daves
Wm. D. Davidson
W. R. Davidson
E. K. Denzer
H. S. Dieckman
Thomas Dobbins
H. S. Dome
Geo. C. Dunlevy
M. S. Durkee
W. S. Ehrich
W. W. Eichelberger
Henry J. Faul
Dallas Fickas
W. H. Field
E. L. Fitzsimmons
C. J. Polz
Wm. G. French
L. E. Fritsch
H. M. Garrison
G. B. Grim
John H. Hare
F. Minton Hartz
Paul Hart
Wm. F. Healy
Albert Heard
Jos. M. Heberer
C. C. Herzer
Warren W. Hewins
V. S. Huggins
G. C. Johnson
Stephen L. Johnson
H. M. Kauffman
R. L. Kleindorfer
Bleeker Knapp
Shirley C. Lang
C. S. Laubscher
Clarence Laubscher
S. R. Laubscher
C. E. Laughlin (H)
W. J. Laval
Chas. F. Leich
Ernil Leslie
Jesse R. Logan
Harold D. Lynch
Paul Lynch
Pierce MacKenzie
E. F. Magenheimer
D. V. McClary
W. E. McCool
J. H. McCool
J. D. McDonald
Walter McDowell
Leonard K. McMurtry
C. G. Macer
K. T. Meyer
Milton Miller
Minor Miller
Victor H. Mino
Marion Morgan
Adeline F. Muelchi
Henry Nenneker
A. E. Newman
Ernest Oppenheimer
J. W. Phares
Walter Pollard
Julian Present
Isador Raphael
Bernard Ravdin
Marcus Ravdin
Clarence E. Reich
T. F. Reitz
Clifford Richey
Geo. M. Royster
H. C. Ruddick
Chas. P. Schneider
Chas. L. Seitz
W. R. Springstun
Harmon L. Stanton
O. C. Stephens
Urban Stork
Chas. C. Sutter
G. B. Taylor
D. G. Tweedall
G. B. Underwood
Victor Varner
Robert W. Viehe
John W. Visser
Edgar H. Weber
H. G. Weiss
J. E. Welborn
J. Y. Welborn
Mell B. Welborn
Wm. M. Wilhelmus
Charles F. Willis
J. H. Willis

Ralph Wilson
S. W. Wishart
Wm. H. Wood
W. P. Woods
J. F. Wynn
C. W. Yeck
P. E. Yunker

VIGO COUNTY**Riley**

C. M. DuPuy
Virgil French
Norman Silverman

Terre Haute

O. O. Alexander
Orris T. Allen
W. C. Anderson
C. W. Asbury
W. D. Asbury
E. R. Baldrige
W. O. Baldrige
H. L. Bernheimer
Leon L. Blum
M. J. Bohannon
Henry W. Bopp

West Terre Haute

E. B. Boots

Terre Haute

Stephen C. Bradley
Paul J. Bronson
A. L. Cabell
A. H. Caffee
G. C. Carpenter
A. W. Cavins
Chas. N. Combs
Stuart R. Combs
G. C. Congleton
J. O. Conklin
J. J. Connelly
J. H. Cook
W. G. Crawford
O. G. Cruikshank
Claude A. Curry
J. E. Dailey
R. J. Danner
H. B. Decker
James E. Donnelly
Rudolph Duenweg
Eugene Eisenlohr
D. H. Forsyth
J. E. Freed
J. O. Garrigus
D. A. Gerrish
Ivan Gilbert
John R. Gillum
H. T. Goodman
C. G. Harkness
E. R. Haslem
John R. Haslem
J. H. Hauck
D. A. Hoover
J. J. Hoover
Edgar J. Hunt
W. B. Hunt
B. M. Hutchings
A. F. Knoefel
Joseph Kunkler
Wm. C. Kunkler
C. Russell LaBier
Clarence R. LaBier
A. H. Lee
C. L. Luckett
Chas. L. Mahoney
L. A. Malone
E. L. Mattox
E. C. McBride
Noel S. McBride
F. G. McCormick
James W. McEwen
D. B. Miller
Albert M. Mitchell
James J. Moorhead
H. M. Mullikin
G. G. Musselman
E. O. Nay
E. S. Niblack
H. J. Pierce
C. E. Ragan
James V. Richart
Floyd Riggs
Milton M. Rubin
F. E. Sayers
Edw. J. Schott
Etta B. Selsam
V. A. Shanklin
Louis Siebenmorgen
I. H. Sloss
S. A. Smoots
James Spigler
O. R. Spigler
W. E. Stewart
Daniel S. Strong

John M. Sullivan
F. A. Tabor
M. C. Topping
D. R. Ulmer
Arnold Utterback
C. R. Van Arsdall
H. R. Vandivier
M. B. Van Cleave
Edward C. Voges
Frank L. Wedel
J. H. Weinstein
James V. White
F. E. Wiedemann
Fred Wilson
Charles Wyeth
Franklin Young
J. Rudolph Yung
E. T. Zaring
Paul F. Zwerner

Fontanet
Eugene Schumaker

Seelyville
C. S. Carmichael

New Goshen
J. B. Loving

Prairie Creek
J. R. Wilson

WABASH COUNTY

North Manchester

Z. M. Beaman
O. G. Brubaker
Joy F. Buckner
L. Z. Bunker
Lucille Carman
Chas. E. Cook
F. S. Kitson
Chas. K. Neher
I. E. Perry
G. W. Seward
J. L. Warvel

Wabash
J. T. Biggerstaff
L. E. Jewett

Minnetta Jordan
G. M. LaSalle
R. M. LaSalle
R. A. Naugle
Ed Pearson
Wm. Pearson
Arthur P. Rhamy
George E. Scott
A. J. Steffen
N. H. Thompson
F. M. Whisler

Roann
James G. Kidd

Lagro
M. E. Renner

LaFontaine
J. L. Walker
Robert McKay

Urbana
H. P. Parker

WARRICK COUNTY

Boonville
Bowen Hoover
Charles F. Martin
C. L. Luckett
J. T. Samples
W. C. Stover
Paul Wilson

Newburgh

John J. Cacia
C. J. Munns
Chas. M. Wilhelmus

Elberfield
J. H. Gabhart
L. S. Taylor

Tennyson
C. E. Springstun

WASHINGTON COUNTY

Salem
Donald Colglazier
Irvin Huckleberry

J. I. Mitchell
Claude B. Paynter
L. W. Paynter

Pekin
Wm. L. Green
Campbellsburg
Thos. K. Tower

WAYNE-UNION COUNTIES

Cambridge City

Loren Ake
Paul G. Hill
C. E. Kenyon
Jos. N. Study (H)

Liberty
Franklin T. Dubois
James F. Lewis
W. B. McWilliams
W. A. Thompson

Richmond

Hubert E. Allen
W. E. Ballenger
Paul W. Blossom
C. S. Bond
F. P. Buche
J. C. Clawson
Frank H. Coble
C. E. Duffin
Volney N. Fackler
V. C. Griffith
Harvey Hadley
F. E. Hagie
Carl Harmon
George R. Hays
R. L. Hiatt
Curtis R. Hoffman
E. E. Holland
C. F. Hufnagel
Gayle J. Hunt
George B. Hunt
Paul S. Johnson
F. E. Keith

Jos. H. Kinsey
F. W. Krueger
S. C. Markley
Russell Malcolm
Elwood J. Meredith
Paul S. Pentecost
H. P. Ross
L. F. Ross
Richard Schillinger
R. A. Staff
Allen Stamper
Howard E. Sweet
W. R. Taylor
Wm. C. Vance
Horace Wanninger
Arthur J. Whallon
E. B. Weinstein
Mary Wickens
G. H. Wisener
M. W. Yencer

Centerville
W. M. Barton
Oliver P. M. Ford

Fountain City
Leon T. Cox

Milton
Edgar C. Denny

Hagerstown
Chester A. Marsh
Wm. Miller

Dublin

D. L. Lutes

WELLS COUNTY

Bluffton
H. D. Brickley
Chas. E. Caylor
Harold D. Caylor
Truman E. Caylor
T. O. Dorrance
Max M. Gitlin
Wm. A. Gitlin
O. G. Hamilton

C. H. Mead
George B. Morris
Allen C. Nickel
H. Brooks Smith

Liberty Center
Chas. M. Gingerick

Ossian
E. W. Dyar
R. C. Wybourn

Zanesville
J. L. McBride

WHITE COUNTY

Monon
W. W. Houser
S. E. McClure

Monticello
John C. Carney
H. B. Gable

Henry W. Greist
W. V. Morris

Brookston
Charles J. Brockway
G. L. Derhammer

Wolcott
W. A. Spencer

WHITLEY COUNTY

Columbia City
Otto F. Lehmberg
E. V. Nolt
Benj. F. Pence

South Whitley
P. A. Garber
V. P. Huffman

W. Ernest Wilkin

Churubusco
J. H. Briggs
E. A. Hershey

Larwill
L. W. Tennant

MEMBERS RESIDING OUTSIDE OF INDIANA

J. E. Alexander, Brooklyn, N. Y. Tippecanoe
Richard H. Appel, Philadelphia, Pa. Marshall
S. E. Bechtold, Philadelphia, Pa. St. Joseph
Max E. Blue, Burkesville, Ky. Kosciusko
C. A. Bohnengel, New York City. St. Joseph
William V. Boyle, Phoenix, Ariz. Marion
G. M. Brother, Baltimore, Md. Ohio
Robert M. Campbell, Oak Park, Ill. Tippecanoe
Grace Caulman, Boston, Mass. Vanderburgh
J. H. Clark, Winter Park, Fla. Fayette
L. T. Cox, Wauwatosa, Wis. Ripley
A. J. Cramp, Ft. Lauderdale, Fla. Porter
L. L. Culp, Minneapolis, Minn. Allen
M. P. Cuthbert, Philadelphia, Pa. Howard
H. E. Dester, Basna, C. P., India. Marion
William Deutsch, Jr., St. Louis, Mo. Delaware-Blackford
Joseph Diamondstein, Calumet City, Ill. Lake
J. F. Dinnen, Cleveland, Ohio. Allen
F. S. Downey, Sidney, Ohio. Dearborn-Ohio
Robert E. Downing, Lexington, Ky. Vigo
C. A. Dresch, Cassopolis, Mich. St. Joseph
J. W. Duckworth, Fort Sheridan, Ill. Marion
Robert H. Dunn, Northport, N. Y. Grant
C. Basil Fausset, New York, N. Y. Marion
John W. Ferree, Baltimore, Md. Marion
Zoltan Glatzer, Dixon, Ill. Lake
John E. Graf, Chicago, Ill. Marion
Wayne Harmon, Louisville, Ky. Randolph
M. M. Hipskind, Chicago, Ill. Lake
A. G. Hofferkamp, Sanater, S. D. Lake
Claude D. Holmes, Ft. Knox, Ky. Marion
George H. Ingram, North Little Rock, Ark. Grant
Ford Keppen, Three Oaks, Mich. Lake
Peter Knoefel, Louisville, Ky. Vigo

H. K. Langdon, Tucson, Ariz. Marion
J. M. Lee, Dayton, Ohio. Rush
J. A. Little, Evanston, Ill. Cass
T. B. Lorenty, Chicago, Ill. Lake
H. F. Machlan, Washington, D. C. Marion
A. W. Marcovich, Chicago, Ill. Lake
William McQueen, Sarasota, Fla. Marion
E. L. Mock, Huntington, W. Va. Knox
Marjorie G. E. Morrison, Detroit, Mich. Hendricks
J. B. Murphy, Dallas, Texas. Cass
R. C. Norton, Battle Creek, Mich. Lake
E. S. Olson, Dayton, Ohio. Lake
Minerva B. Pontius, Ann Arbor, Mich. Vanderburgh
David G. Pugh, Hollywood, Cal. Wayne-Union
F. T. Romberger, Jr., Baltimore, Md. Marion
Ralph Sappenfield, New York, N. Y. Fayette-Franklin
H. W. Shaw, Louisville, Ky. Clark
F. F. Shepard, College Corner, Ohio. Wayne-Union
Darwin M. Short, Cleveland, Ohio. Vanderburgh
H. G. Sichler, Detroit, Mich. Tippecanoe
S. G. Silverburg, Gulfport, Miss. Delaware-Blackford
E. M. Sirlin, Philadelphia, Pa. St. Joseph
F. C. Smith, Los Angeles, Cal. Marion
L. W. Smith, Columbus, Ohio. Wabash
John S. Sprague, Aspinwall, Pa. St. Joseph
John S. Stanley, Nigh, Ky. Lake
H. A. Stellner, Chillicothe, Ohio. Vanderburgh
Capt. C. E. Stone, Salmon, Idaho. Lawrence
John R. Surber, Philadelphia, Pa. Marion
S. D. Swionkowski, Chicago, Ill. Lake
A. B. Thompson, Veteran's Administration, Wis. Spencer
Victor F. Tremor, Huntington, W. Va. Marion
R. R. Tracht, Minneapolis, Minn. Lake
E. H. Warnock, Hartford, Conn. Jasper-Newton
Leslie Wilson, Lansdowne, Pa. Wayne

1939 DUES ARE PAYABLE NOW!

Deaths

CONRAD WILLIAM MARXER, M.D., of Indianapolis, died October seventeenth, aged sixty-six years. Dr. Marxer had practiced in Indianapolis for more than forty years. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1897, and was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. Dr. Marxer served as a captain in the medical service during the World War.

WILLIAM H. BARKLEY, M.D., died at his home in Cold Spring, October twenty-fourth. Dr. Barkley was eighty-two years old. He had spent his entire life in Dearborn county. He was a graduate of the Cincinnati College of Medicine and Surgery in 1887.

EDWIN M. LAND, M.D., of Marengo, died October third, aged sixty years. He had practiced in Marengo since 1918. Dr. Land was a graduate of the Hospital College of Medicine, Louisville, in 1904.

CHARLES MONROE KENNEDY, M.D., of Camden, died November fourth. Dr. Kennedy was sixty-three years old. He had practiced in Camden since the completion of his medical education. He was active in civic and social affairs, and had served as Carroll County coroner and at the time of his death was president of the Camden State Bank. He was a graduate of the Medical College of Indiana, Indianapolis, in 1905, and was a member of the Carroll County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

JOHN M. WALLACE, M.D., of Lynn, died as the result of an automobile accident, October thirty-first. Dr. Wallace was fifty-eight years old. He graduated from the Medical College of Indiana, Indianapolis, in 1903, and was a member of the Randolph County Medical Society, the Indiana State Medical Association, and the American Medical Association.

JOHN M. JOHNSON, M.D., aged eighty years, of Frankfort, died October twenty-first. He had practiced in Frankfort for thirty years. Dr. Johnson graduated from the Curtis Physio-Medical Institute in 1894, and had been a member of the Clinton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

GEORGE B. BREEDLOVE, M.D., of Martinsville, died November tenth, aged seventy-two years. He had

practiced in Martinsville since 1905 except for the time that he served in the army medical corps during the World War. He graduated from the University of Tennessee College of Medicine, Memphis, in 1900.

ALFRED E. RHEIN, M.D., of Terre Haute, died October twenty-eighth. Dr. Rhein was fifty-five years old. He was a specialist in diseases of the eye, ear, nose, and throat. Dr. Rhein began his practice in Rosedale following his graduation from the Eclectic Medical College of Cincinnati in 1906. Later he graduated from the University of Illinois College of Medicine, Chicago, in 1913 and did post-graduate work in eastern schools and abroad. Following his studies in Berlin and Vienna, he returned to Terre Haute and opened his office for special practice in 1927. Dr. Rhein had received the certificate of the American Board of Otolaryngology and was a member of the American Academy of Ophthalmology and Otolaryngology, the Vigo County Medical Society, the Indiana State Medical Association, and the American Medical Association.

J. GUY HOOVER, M.D., of Boonville, died November seventh. He was fifty-nine years old. Dr. Hoover was a native of Warrick county and had spent his entire life there. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1904, and was a member of the Warrick County Medical Society, the Indiana State Medical Association, and the American Medical Association.

GEORGE R. CLAYTON, M.D., of Lafayette, died October seventeenth, aged fifty-four years. Dr. Clayton was a well known specialist, and had practiced his specialty of diseases of the eye, ear, nose and throat in Lafayette since 1920. Prior to that time he had practiced in Monon and Fowler. Dr. Clayton served in the army medical corps at Hattiesburg, Mississippi, during the World War. He graduated from the Illinois Medical College, Chicago, in 1909, and was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

MELVILLE ROSS, M.D., of Bloomington, died November second, aged fifty-one years. Dr. Ross graduated from the Indiana University School of Medicine in 1911, and in 1916 he entered the medical corps of the United States Army, where he served as a captain until 1919, after which he served in the Veterans' Bureau in Indianapolis until 1926. Active in medical society affairs, Dr. Ross was president of the Monroe County Medical Society in 1935 and 1936, and was a member of the Indiana State Medical Association and the American Medical Association.

News Notes

Miss Lois L. Walker of Clinton and Dr. Edward C. Voges of Terre Haute were married October sixteenth.

Miss Ida Wood, of Spencer, and Dr. Robert B. Johnson, of Bloomington, were married in Indianapolis, September tenth.

Miss Ruth Lensing of Evansville and Dr. L. Paul Hart of Evansville were married October fourth.

Miss Elma Louise Miller, of Fort Wayne, and Dr. B. W. Rhamy, of Fort Wayne, were married October nineteenth.

Dr. John S. Woolery, of Bedford, has been named county health officer for Lawrence county to succeed the late Dr. W. H. McKnight.

At the meeting of the Union District Medical Association held in Hamilton, Ohio, October twenty-seventh, Dr. Paul Blossom of Richmond was elected secretary-treasurer. Dr. H. A. Moore of Oxford, Ohio, was elected president.

A new medical clinic building has been opened in Madison, Indiana, by Dr. George A. May. The building includes rooms for consultation, treatment, surgery, x-ray, and hospital recovery rooms.

Dr. Herman M. Baker, of Evansville, spoke at the November meeting of the Council of Social Agencies held November seventh in Indianapolis.

Dr. C. K. Hepburn of Rensselaer has moved to Detroit where he has accepted a position as a member of the resident staff of a Detroit hospital.

The Sullivan County Medical Society has completed its seventh annual diphtheria immunization of the school children in Sullivan county.

Dr. William M. Loehr of Versailles has returned from the Mayo Clinic where he attended the tenth annual medico-military inactive status training unit and the annual meeting of the Association of Military Surgeons of the United States.

Dr. Victor Heiser, author of "An American Doctor's Odyssey," spoke before Purdue University students, November eighth. The lecture was the third in a series of convocations and lectures.

Dr. D. W. Quickel of Anderson was the guest of honor at a meeting of the Madison County Medical Society held October seventeenth at St. John's Hospital. It was the occasion of Dr. Quickel's seventy-first birthday.

Dr. G. M. Young has opened an office for general practice at 3859 Broadway, Gary, Indiana. Dr. Young has been practicing in Lake county since last March, having been associated with other physicians prior to this time.

Dr. W. D. Gatch, dean of the Indiana University School of Medicine, was elected one of the forty-seven members of the Board of Governors of the American College of Surgeons at the annual congress of the organization in New York. The term of office is three years.

Dr. H. F. Beckman appeared before the Northeastern Academy of Medicine at a dinner-meeting held at Kendallville on October 27th.

His subject was "Hemorrhage During Labor." About forty-five members were present at the meeting.

Dr. C. O. McCormick, of Indianapolis, was a guest speaker before the obstetrical section of the Southern Medical Society meeting, in Oklahoma City in November. Drs. Bennett Kraft and C. B. Bohner, also of Indianapolis, attended the meeting. Dr. and Mrs. Bohner proceeded after the meeting on a motor trip into Mexico.

United States Civil Service Commission announces open competitive examinations for the positions of Junior Medical Officer (rotating internship) and Junior Medical Officer (Psychiatric Resident). Applications must be on file with the United States Civil Service Commission at Washington, D.C., not later than December 13, 1938.

The alumni association of the Central Medical College of Physicians and Surgeons met in the Columbia Club, Indianapolis, October twenty-sixth. Speakers included Dr. John F. Barnhill of Miami, Florida; Dr. S. P. Scherer, Martinsville; Dr. Nicholas Kremer, Madison; Dr. J. R. Eastman, Indianapolis; Dr. John G. Moir, Deming, N. M., and Dr. Roy Earhart, Panama Canal Zone.

The annual meeting of the Maternal Health League of Indiana was held at the Claypool Hotel, Indianapolis, November fourth. Dr. Norman E. Hines discussed "The Place of Birth Control in

Modern Social Work." The league's annual business meeting followed the address and reports were submitted from units in Indianapolis, Fort Wayne, Evansville, and South Bend.

Mrs. Isaac Born, 533 South Central Court, Indianapolis, has accepted the appointment of commander of the Indiana division of the Women's Field Army of the American Society for the Control of Cancer. She succeeds Mrs. George Dillinger of French Lick, who resigned. Mrs. Born has assumed her duties and is organizing districts which will be developed under the supervision of vice-commanders appointed by Mrs. Born. The entire program of organization and education is under the supervision of the medical profession, and has for its objective the reduction of the rapidly mounting death toll from cancer in Indiana.

Two women physicians specializing in psychiatry and tuberculosis have been added to the medical staffs of the Evansville State Hospital and the Boehne Tuberculosis Hospital at Evansville. Dr. Martha Moore is the resident physician on the Evansville State Hospital staff. Dr. Gladys Hudson, who went to Evansville from Toronto, Canada, is the new staff member of the Boehne Tuberculosis Hospital.

Dr. Walter Straus, German psychiatrist, has joined the staff of the Evansville State Hospital, taking the position formerly held by Dr. Howard Stellner, who is now associated with the Industrial Reform School at Chillicothe, Ohio. Dr. Straus was educated in Germany and Switzerland and served for five years as psychiatrist in Swiss hospitals. He has been in New York for the past six months.

Dr. W. W. Swarts, health commissioner for Auburn, Indiana, points out that people in DeKalb county are living longer. A survey of records for a period of fifty years shows that in 1884, 1885, and 1886 the percentage of deaths 40 years and under was 57.26, while in 1933, 1934, and 1935 it was only 17.54. The percentage of deaths of persons 60 years and under for the same periods was 73.40 compared to 32.18. Dr. Swarts also calls attention to the importance of records of births and deaths with the advent of old age pensions, railroad pensions, welfare assistance, commercial pensions, etc.

The Institute of Medicine of Chicago gave its Fifteenth Pasteur Lecture jointly with the Cancer Research Institute of the Chicago Woman's Club at a public meeting held on Tuesday evening, No-

vember 22, in the auditorium of the Museum of Science and Industry, Jackson Park, Chicago. Dr. Ludvig Hektoen, director of the John McCormick Institute for Infectious Diseases, Chicago, and of the National Advisory Cancer Council, Washington, D. C., will speak on "Progress in the Knowledge and Control of Cancer."

Application for space in the scientific exhibit of the American Medical Association at the nineteenth annual session to be held in St. Louis, May 15-19, 1939, are being accepted now. All applications must be submitted before January 5, 1939. Applications will be acted upon by the Committee on Scientific Exhibit as soon as possible after that date, and notifications sent to exhibitors about February 15, 1939. Applications may be sent either to one of the section representatives or to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

NEW FILM AVAILABLE FOR PROGRAMS

The Bureau of Maternal and Child Health of the Indiana State Board of Health has announced that a two-reel motion picture entitled "Safe Home Delivery," has been added to the available films for distribution through the Bureau. This is a silent, non-inflammable film, 16 mm. width, and is of special interest to nurses and doctors in preparation for holding classes on the subject of home delivery. It is suitable for audiences such as county medical societies and nurses' institutes.

POSTGRADUATE COURSE IN OBSTETRICS

Following the announcement of the postgraduate courses in obstetrics to be held at Indiana University School of Medicine (October JOURNAL, page 576), the Committee on Postgraduate Education sent a communication to all county medical society secretaries asking them to assist by presenting the matter at one of the early meetings of the society.

Members wishing to file application for the course should do so at once. Vacancies are rapidly being filled, particularly those vacancies occurring after January first. There are a few vacancies remaining during the month of December. Any member wishing to avail himself of this opportunity should communicate with the Indiana State Medical Association, or direct with the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

INDIANA UNIVERSITY NEWS NOTES

Seventy-eight persons attended the annual fall banquet of Phi Chi professional medical fraternity held November first in the Indiana University Union building at Bloomington. Dr. V. Brown Scott, professor of physiology, was toastmaster for the banquet. Physicians, active members and pledges from both the Bloomington and Indianapolis campuses were present. Alan D. Houser of North Liberty and Welbon Britton of Beech Grove were co-chairmen for the banquet.

Three movies on medical practice were shown to members of the Theta Kappa Psi professional medical fraternity at Indiana University November tenth. They were "Surgery Empyema," "Mesenteric Lymphatics" and "A Low Cervical Caesarean Section." Ray Getz of Fort Wayne is president of the fraternity and presided at the meeting.

Dean G. D. Timmons of the Indiana University school of dentistry at Indianapolis came to the Bloomington campus November eleventh to talk to pre-dental students about requirements for admission and work in the dental school.

The Indiana University Psychological Clinics located in both the Indianapolis and Bloomington divisions of the University, under the direction of Dr. C. M. Louttit served 689 Indiana people during the year ending September thirtieth. The Indianapolis clinic located at the Indiana University Medical Center had 417 different cases and the Bloomington clinic 272.

Those taken care of at the Bloomington clinic included mainly pupils from the Bloomington and Monroe county schools. Several cases were cared for from Morgan, Lawrence and Orange counties, Dr. Louttit's report shows. The personnel of the clinic in Bloomington included Dr. Louttit, David R. Craig and K. B. Brown. During the year there were 19 different students enrolled in practice courses in the clinic and most of the formal examinations of children were done by the students.

The Indianapolis clinic took care of cases from the Riley Hospital, Rotary Home, Long Hospital, Coleman Hospital, City Hospital, Indianapolis schools, social service agencies, physicians and juvenile courts. The largest number, 304, came from the Riley Hospital. One hundred and twenty additional contacts were made with the individuals originally served at the Indianapolis clinic.

Jerry W. Carter, Jr., as senior clinic psychologist, was in direct charge of the Indianapolis clinic operation under supervision of Dr. Louttit. His assistants were Robert C. Kammerer and Richard S. Ball. Speech and orthoptic cases, heretofore taken care of by the Psychological clinic in Indianapolis were changed to different departments this

year. Speech correction work was taken over by the speech correctionist appointed for the department of occupational therapy. The orthoptic training carried on for three years by the psychologists in cooperation with the department of Ophthalmology has been essentially discontinued because of the change in location of the Eye Clinic. A number of cases of the Psychological clinic were turned over to Dr. Exie Welsch, whose services were made available by the State Board of Health. "The work done by Dr. Welsch has indicated the value of psychiatric consultation and has raised the question of the need for a child guidance clinic," Dr. Louttit said.

In addition to its service work and intramural training and research, the clinics have endeavored to assist state institutions, organizations and citizens of the state. Additional work also has been done on the proposed program of research on crippled children. During the past year two studies on this program have been under way. Each of these is a detailed clinical study of 50 crippled children of a specific type for the purpose of discovering the influence of crippling on the child's behavioral development.

STATE PARKS OPEN ALL WINTER

Hoosier physicians who are lovers of the great outdoors will be glad to know that the Indiana State Parks will remain open throughout the winter. In all these great recreational centers the hotels will operate throughout the year, save that at Indiana Dunes State Park, which will close shortly after Christmas. The out-door kitchens will be available at all times, so that those who care to prepare their winter meals may do so. An additional feature of interest is that at most of the delightful spots the old fashioned sleigh rides are available. To those who are not afraid to dare the blasts of Old Boreas this announcement will come as a pleasant surprise.

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASES Monthly Report, October, 1938

Diseases	Oct. 1938	Sept. 1938	Aug. 1938	Oct. 1937	Oct. 1936
Tuberculosis -----	167	87	174	432	169
Chicken Pox ----	82	11	9	93	110
Measles -----	33	10	23	55	12
Scarlet Fever ----	496	143	74	576	354
Smallpox -----	29	14	14	10	4
Typhoid Fever ---	27	42	62	16	33
Whooping Cough	107	35	40	107	64
Diphtheria -----	165	39	26	113	145
Influenza -----	62	38	14	124	117
Pneumonia -----	78	46	23	63	53
Mumps -----	29	13	8	19	24
Poliomyelitis ----	6	1	1	19	22
Meningitis -----	4	4	3	3	15
Encephalitis ----	1	2	0	1	1
Malaria -----	23	47	1	0	0
Undulant Fever --	3	3	0	5	1
Septic Sore Throat	1	0	0	0	0
Rocky Mountain Spotted Fever--	1	3	3	0	0

Societies— Institutions

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

October 3, 1938.

Meeting called to order at 6 p. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; E. M. Shanklin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Dr. W. L. Green, of Columbus, and Dr. L. G. Montgomery, of Muncie, were asked to attend the dinner.

Minutes of the meeting of August 7, 1938, approved upon the motion of Dr. Baker, seconded by Dr. McCaskey.

Membership Report

Number of members on Oct. 3,	
1938 -----	3,059 (62 hon. mems.)
Number of members on Oct. 3,	
1937 -----	2,952
Gain over last year -----	107
Number of members Dec. 31,	
1938 -----	2,982 (40 hon. mems.)

Treasurer's Office

Report made that \$10 was received on August 26, 1938, on the Rokeby Liquidation Trust.

Farm Security Administration

No new developments.

State Board of Medical Registration and Examination

No new developments.

Organization Matters

(1) *Extraneous medical societies.* Statement in regard to the relationship of the Muncie Academy of Medicine and the Delaware-Blackford County Medical Society made to the Committee by Dr. Montgomery. The general viewpoint of the Executive Committee in regard to extraneous societies was presented to Dr. Montgomery.

(2) A special health and accident insurance policy written for the members of the Wayne County Medical Society, Detroit, Michigan, by the Income Guaranty Company of South Bend, Indiana, was brought to the attention of the Committee.

(3) The movement of the Lake County Medical Society to obtain a full-time secretary was discussed by Dr. Shanklin.

State Board of Health

Free distribution of biological products by the State Board of Health was suggested in a resolution prepared by Dr. H. J. Norton, of Columbus. According to Dr. Norton's proposed resolution "such biological products will be available for requisition by proper local authorities for use among indigents by members of county medical societies." The Committee felt that the proper place for this resolution was the House of Delegates and it should not be considered by the Executive Committee and the Committee instructed the secretary to notify Dr. Norton in regard to this.

Monthly Statements

The monthly statements of Receipts and Expenditures for August for the Association committees and THE JOURNAL were approved. Reports of the Budget for August for the Association committees and THE JOURNAL were made.

1938 Annual Session at Indianapolis

(5) *Resolution in regard to Medical Corps instructor.* Resolution prepared by Dr. W. U. Kennedy in regard to

asking that the United States Army place a medical corps instructor in this district presented to the Executive Committee. The Committee instructed the secretary to see that this was placed before the Veterans' Affairs Committee.

Legislative, Legal and Social Security Matters

National:

(1) Briefs from Social Security Board bulletins presented to members of the Committee.

Local:

(1) Dr. Green asked the opinion of the Executive Committee as to whether or not a resolution insisting that the insurance companies allow the patient the choice of physician in workmen's compensation cases should be presented to the House of Delegates. The Committee felt that whether or not the resolution was presented was entirely up to Dr. Green. The Committee also stated that contacts had been made with insurance companies urging them to follow a more liberal policy in allowing the patient the choice of physician than is now pursued.

(2) Letter addressed to the secretary of the Board of Beauty Culturists in regard to beauty board examinations read to the Committee. No answer has been received to this letter which urged that applicants for beauty licenses be allowed the choice of their own physician.

Sickness Insurance and Socialized Medicine

Conference on Rural Medicine, Cooperstown, New York. The Committee realized the importance of this conference but felt that we in Indiana are too busy at the present time to attend the conference.

Letter from United Automobile Workers of America in regard to medical services in Muncie. This letter was forwarded to the chairman of the Council, who in turn sent it to the proper officials of the Delaware-Blackford County Medical Society.

Report made that a national meeting of Catholic Church officials was held at Vincennes, Indiana, recently, where rural cooperatives as applied to medical practices were discussed.

Medical Care for All the People

The headquarters office was instructed to send all the forms which have been filled in and sent to the headquarters office to the American Medical Association. The Committee is of the opinion that enough information has been received in these blanks to enable the American Medical Association to get a good cross-section and to determine the status of medical service in Indiana and that it should not be necessary to proceed any further with this matter. Three of the larger societies have carried on the work intensively—Vigo, Vanderburgh, and Marion counties. Several of the smaller societies also have completed the survey.

Medical Economics

(1) Notice given to the Committee that Dr. Frederick Warnshuis is publishing a new journal on Medical Jurisprudence. The first copy of this journal was received and turned over to Albert Stump for review and report at the next meeting of the Committee.

(2) Suggestion made that each physician be assessed one-tenth of one per cent of the gross income derived from his practice. Thus, if a physician earns \$15,000 a year he would pay \$15 under this plan, while one that grosses \$3,000 would pay \$3. It was suggested that this money could be used for advertising, publicity, and arranging for speakers for a statewide speaking program among lay groups, and radio talks.

(3) Letter received from the Evansville Milk Producers' Association, Inc., by Dr. Baker, enclosing a clipping from "Hoard's Dairyman," the leading dairy paper of the United States, showing the favorable reaction of the dairy industry to the recent action taken by the House of Delegates of the American Medical Association at San Francisco in regard to the "establishment of suitable standards for the acceptance of butter and its advertising by the Council on Foods."

This action corrected an injustice whereby the Council on Foods investigated and approved advertising in regard to certain butter substitutes but did not do the same for butter.

Indigent Sick

(1) Complaints received from several physicians in the state about the failure of township trustees to pay bills for emergency relief cases. Albert Stump was authorized to handle these cases for the doctors making the complaints.

(2) Question arose as to the removal of a township trustee in case he fails to do his duty. The Governor's Commission on Unemployment Relief has a right to file charges for the removal of a township trustee if the commission finds that "the trustee has failed or refused to perform any statutory duty imposed on him as such overseer of the poor." The Governor is empowered to remove a trustee from office if the charges presented by the commission are found to be true, according to Mr. Stump's opinion.

The Indiana Plan

It was brought to the attention of the Committee that the Indiana Plan was accepted by the Indiana Department of the American Legion at its convention in August and by the American Legion at its national convention at Los Angeles in September.

Group Hospitalization and Voluntary Health Insurance

(1) L. B. McCracken, manager of the Indianapolis Medical and Dental Service Bureau, states that the bureau is in a position to expand its services if the State Medical Association desires it to do so.

(2) Report made that conferences had been held with several insurance men in regard to group hospitalization and voluntary sickness insurance plans.

(3) Report of the hospital survey for New York brought to the attention of the Committee.

(4) Suggested program of the Bartholomew County Medical Society in regard to group hospitalization brought to the attention of the Committee.

(5) Cleveland plan of group hospitalization and voluntary sickness indemnity insurance, along with the Toledo and Oakland, California, hospital insurance plans, reviewed by the Committee.

Graduate Education

(1) Report made that the total expense of the spring course was \$1,098.05. If the State Association pays half of this, which is its share of expense, the budget of the Committee on Graduate Education will be exceeded by \$249.03. The Committee felt that it had no right to exceed the budget set down and that the additional sum of money needed to pay for this course could be obtained only by action of the Council.

(2) Proposal of the State Committee on Graduate Education that intensive postgraduate instruction courses in obstetrics be set up at the Indiana University School of Medicine brought to the attention of the Committee. Physicians desiring to take advantage of these intensive courses in obstetrics may study for a period of two weeks or more at the Indiana University School of Medicine. These two-week courses are to be offered to all members of the medical profession, but they are especially designed for those physicians practicing in areas of severe economical depression, and in the strictly rural areas. Four physicians can take the course at the same time, these doctors residing on the University campus, and there will be no charge for tuition, board or room. The work will be under the full-time direction of Dr. Carl P. Huber. These courses will be financed by federal funds supplied by the Bureau of Maternal and Child Health. This proposal was approved by the Executive Committee.

Airplanes Flying Over Football Fields

Suggestion made that the State Association take some action concerning airplanes flying over football fields. The Executive Committee felt that this was not the business of the State Association.

The Journal

Note received from Mrs. W. F. Hughes, publicity chairman of the Woman's Auxiliary, suggesting that THE JOURNAL be sent to the homes of physicians instead of to their offices. This was referred to the editor of THE JOURNAL.

November 6, 1938

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; Karl Ruddell, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary. Dinner guests: V. K. Harvey, M.D.; F. M. Gastineau, M.D.; N. M. Beatty, M.D.; A. M. Mitchell, M.D.; Larue Carter, M.D.; G. C. Stevens, M.D.; J. H. Bowles, M.D.; D. A. Covalt, M.D., and L. G. Montgomery, M.D.

Monthly Statements

The monthly statements of Receipts and Expenditures for September and October for the Association committees and THE JOURNAL were approved. Reports of the Budget for September and October for the Association committees and THE JOURNAL were made.

1938 Annual Session at Indianapolis

(1) *Appointment of committees.* As a result of actions taken formally and from informal discussions at the Indianapolis session, the following four committees are to be appointed:

a. *Committee on Graduate Education.* Dr. Baker recommended a reorganization of the Committee on Medical Education and Hospitals, increasing the membership to six members with terms of service staggered so that each member will serve six years. (For further details see president's address, page 593-594, November 1938 issue of THE JOURNAL of the Indiana State Medical Association.) Dr. Baker spoke of the fact that Dr. George Vincent, formerly president of the Rockefeller Foundation, had stated that perhaps the Rockefeller Foundation might be interested in aiding Indiana in working out such a program of graduate education. After its appointment the committee is to consider this suggestion and if it is thought feasible the committee is to obtain information from the Rockefeller Foundation.

b. *Special Committee to Study National Medical Situation.* The House of Delegates approved the report of the special committee which recommended "the creation of a permanent study committee whose duty it will be to keep in constant touch with the situation both locally and nationally." Dr. VanBuskirk suggested that Dr. Baker be named chairman of this committee. Dr. Baker however feels that he cannot take the chairmanship of this committee. Suggestion made that the committee be made up of the Executive Committee along with Dr. W. U. Kennedy of Newcastle, present chairman of the Committee on the Study of Health Insurance, with additional members to be appointed by the president.

c. *Anti-Tuberculosis Committee.* Dr. VanBuskirk reported that a request had been made by physicians who are members of the Indiana Tuberculosis Association that a committee be appointed to act in liaison with the Tuberculosis Association. Upon the motion of Dr. McCaskey, seconded by Dr. Baker, the appointment of this committee was approved. Dr. VanBuskirk asked the secretary to get in touch with Dr. J. H. Stygal, who is a member of the Tuberculosis Association, in regard to this matter.

d. *Committee on Conservation of Vision.* The Section on Ophthalmology and Otolaryngology suggested that a Committee on Conservation of Vision be established by the Indiana State Medical Association to consist of five members and to be appointed by the president. The action of this section was brought to the attention of the Executive Committee and this special committee will be appointed by the president for 1939.

(2) *Dr. Baker's program.*

a. *Raising of dues.* Letters from various county medical societies requesting information in regard to

why dues should be raised brought to the attention of the Committee. The Committee felt that the letter written by Dr. Austin to each member of the Council and President Baker's address answered these questions satisfactorily.

1939 Annual Session at Fort Wayne

(1) The following dates were set tentatively for the ninetieth annual session of the Indiana State Medical Association: October 10, 11 and 12, 1939. This was done upon the motion of Dr. Baker, seconded by Dr. VanBuskirk, with the suggestion that the dates selected by the Indiana State Medical Association should not conflict with the dates of the Interstate Postgraduate Assembly.

(2) *Appointment of General Chairman of Arrangements by Dr. VanBuskirk.* Drs. M. R. Lohman, H. V. Blosser, and L. T. Rawles have been appointed by Dr. VanBuskirk. The executive secretary is to meet with the committee chairman at Fort Wayne, Thursday evening, November 10.

Legislative, Legal and Social Security Matters

National:

The osteopathic measure, the Burk-Drew amendment, has been put into effect and osteopaths now have a right to receive pay from federal funds for doing work on WPA and other governmental employees.

Compendium on Judicial Decisions on Corporate Practice of Medicine turned over to Albert Stump. Mr. Stump spoke of the fact that the Indiana Supreme Court recently has held that a corporation could not practice medicine in this state.

The anti-vivisection article which appeared recently in *Life* received the hearty commendation of the Committee.

Local:

Question of the right of a patient to choose his own physician in compensation cases brought to the attention of the Committee. The recent decision of the Indiana Appellate Court, which upheld the ruling of the Industrial Board that a patient under the Indiana law does not have the right to choose his own physician and receive compensation from the State for services rendered by that physician was discussed by the Committee. The Committee was of the opinion that when and if the law is introduced providing that the State take over compensation work, an amendment must be written into the law allowing the patient to choose his own physician. Albert Stump is to prepare an article for *THE JOURNAL* commenting upon the recent finding of the Appellate Court in the above mentioned case.

Sickness Insurance and Socialized Medicine

Newspaper clippings in regard to the meeting of the American Medical Association committee with governmental officials in Washington to discuss the national health program brought to the attention of the Committee. Apparently from the newspaper clippings the medical and governmental authorities are nearing agreement upon four of the five points of the National Health Conference program. The one point where the two groups are in disagreement is the plan to establish compulsory health insurance under governmental supervision.

Suggestion presented to the Committee that a corps of speakers be trained to talk on socialized medicine and that material be compiled for the use of such speakers. The Committee felt that a number of speakers, competent to present the medical viewpoint upon this subject, already are available. It suggested that it would be well to compile in a brief form material that might be used by physicians who are asked to talk upon socialized medicine. This material is being compiled by Dr. Norman Beatty, chairman of the Legislative Committee of the State Association.

Farm Security Administration

The chairman of the Committee reported that he had had several conferences with Dr. F. V. Meriwether and Mr. M. E. Hays of the Farm Security Administration. The Committee authorized the Indianapolis members of

the Executive Committee to meet with Dr. Meriwether and Mr. Hays and to discuss the Farm Security health problem with them. This committee was authorized to outline the limits within which the State Association would approve agreements reached by the Farm Security Administration and the local county medical societies. The Committee is still of the opinion that this is a question to be worked out by the Farm Security Administration with the local county medical societies.

"The Indiana Plan"

Arrangements made to show exhibit at Southern Medical Association meeting at Oklahoma City, November 15 to 18.

Suggestions as to how to make the "Indiana Plan" actually function made by Dr. Gastineau of the Bureau of Publicity. Dr. Gastineau is to appear at the next meeting of the Committee with more definite information.

Suggestion by Dr. Maple in regard to each county medical society having programs mapped out for them in accordance with the "Indiana Plan" brought to the attention of the Committee. The Committee felt that essentially Dr. Maple's idea had to do with graduate education and should be referred to the new Committee on Graduate Education.

Organization Matters

Report made that Lake and Vanderburgh counties are contemplating the employment of full-time secretaries and that the St. Joseph County Medical Society has decided not to employ a full-time secretary at the present time.

Action of the Delaware-Blackford County Medical Society. Dr. J. H. Bowles, president, Dr. D. A. Covalt, secretary, and Dr. L. G. Montgomery, representing the Delaware-Blackford County Medical Society, appeared before the Committee and outlined in detail the medical and lay educational program which has been approved by the Delaware-Blackford County Medical Society. The Committee expressed its deep appreciation for the work that has been done to develop the program and gave its hearty approval to the project. The Committee had the following suggestions to make:

a. That an article in regard to the Delaware-Blackford County Medical Society program be prepared for an early number of *THE JOURNAL*.

b. That the Delaware-Blackford County Medical Society prepare an exhibit which will show how a local county medical society is actually carrying out the "Indiana Plan." This exhibit should be shown at the secretaries' conference which is to be held in Indianapolis on January 22, 1939.

c. This exhibit might be arranged for showing as a scientific display at the annual session of the American Medical Association which is to be held in St. Louis, May 15 to 19, 1939, as a follow-up to the "Indiana Plan" exhibit which was shown at the San Francisco meeting last June.

Article in *Fortune* on American Medical Association.

Article in November issue of *Fortune* in regard to the American Medical Association brought to the attention of the Committee.

Request that the Indiana State Medical Association join the Indiana State Chamber of Commerce brought to the attention of the Committee. Membership would cost \$100.00 per year. The Committee felt that it had no authority to expend money for such membership without the approval of the Council and the House of Delegates.

Medical Care for All the People

In accordance with the action taken by the Executive Committee at its last meeting, all the material on the medical care for all the people survey which had been received at the headquarters office was forwarded to the American Medical Association. Letters have been received from Dr. W. F. Braasch, chairman of the Committee on Supply of Medical Care, and Dr. R. G. Leland of the American Medical Association, urging that all

returns be in the hands of the American Medical Association by December 1. Dr. Leland's letter also urged that the State Association make an analysis of the situation in Indiana as a result of the survey but the Committee felt that a better idea of the situation can be obtained from individual surveys, such as the Vanderburgh county report which already has been published in *The Journal of the American Medical Association*. Upon the motion of Dr. Austin, seconded by Dr. Van-Buskirk, the Committee reaffirmed its position taken at the last meeting of the Executive Committee in regard to the disposal of the survey forms.

State Board of Health

Free biologicals. The action of the House of Delegates in regard to the distribution of free biological products by the State Board of Health was brought to the attention of the Committee. According to this resolution ways and means are to be worked out by the State Board of Health whereby these biological products are to be distributed free of charge to physicians for treatment of indigent cases.

Pneumonia control.

a. Dr. Verne Harvey, secretary of the State Board of Health, appeared before the Committee and presented his film on pneumonia typing. This film is to be shown to the public throughout the state at some 500 theaters within the next few weeks. The showing of the film received the wholehearted approval of the Committee. As "Pneumonia" is to be the topic of the month for the January State *Journal*, the suggestion was made that several pictures from the film be used in THE JOURNAL, along with a write-up on the film.

b. Dr. Harvey said that at the present time federal funds are available to be used in obtaining pneumonia serum but that he felt the funds should come from the State and not from the Federal government and hence he is going to ask the legislature for an appropriation of between thirty and fifty thousand dollars for the purchase of pneumonia serum.

Group Hospitalization. Voluntary Health Insurance

Report on the meeting held November 4 in Indianapolis, which was attended by more than fifty representatives of the hospitals, insurance companies, consumer groups and physicians, made to the Committee. It was evident at this meeting that the companies writing commercial insurance were opposed to voluntary hospitalization plans. The hospital group asked what the opinion of the State Medical Association would be if such voluntary hospital insurance plans are developed in Indiana by the Hospital Association. The Executive Committee said that the unofficial opinion of the profession in regard to this should be as follows:

a. The Indiana State Medical Association by action of the American Medical Association and the House of Delegates of the State Association is committed to the approval of any hospital insurance plan which is sound and which is formulated under the laws of the State of Indiana.

b. Albert Stump, attorney for the State Association, said that in his opinion there is no necessity for any amendment being written in the present Indiana insurance law in order that group hospitalization plans can be set up in this state.

c. The suggestion is made that the hospital group should obtain legal opinion concerning this point and if it is found that group hospitalization plans cannot be set up legally and if the Hospital Association presents to the legislature an amendment to the present insurance law which would provide for the legal formation of such groups that the State Association would not oppose such legislation. Unofficially the Executive Committee felt that the State Association should give any aid and good will it could to the passage of such legislation if such is thought to be necessary. Nothing was to be put in writing concerning this action but the members of the Executive Committee were to inform the hospital officials in their own communities in regard to the action of the Committee.

The Committee approved the acceptance of the invitation by Dr. Herman Baker to talk at the meeting of the social service workers' group which is to be held in Indianapolis the evening of November 14.

A letter received from the secretary of the Gibson County Medical Society asking if any insurance company had received the approval of the State Association for the writing of group hospital insurance was brought to the attention of the Committee. The Committee has not as yet approved the plans presented by any individual companies.

Report made that the Lake County Medical Society has a committee, the chairman of which is Dr. N. K. Forster, which will present a program to the county medical society for group hospitalization. An insurance company is cooperating with the county medical society to develop a program and to make Lake County a testing ground for the same.

Letter received from the Miami County Medical Society stating that the members of the county society were "in hearty accord with the recommendations made by the delegates of the American Medical Association at its special session in Chicago on September 17."

A pamphlet entitled "Rates and Benefits of Non-Profit Hospital Care Insurance Plans," published by the Committee on Hospital Service of the American Hospital Association, brought to the attention of the Committee. The Committee suggested that a copy of this pamphlet be obtained for each member of the Executive Committee.

Report made by Dr. Norman Beatty, chairman of the Legislative Committee, that physicians in New York State had drafted plans for the creation of voluntary sickness insurance organizations in New York State.

Secretaries' Conference

Dr. A. M. Mitchell, of Terre Haute, chairman of the Secretaries' Conference, appeared before the Committee to set the date and to discuss the program for the annual midwinter conference. The Committee set January 22 as the tentative date for this conference. Dr. Mitchell suggested that the program cover insurance plans, group hospitalization, legislative matters, and work of the various governmental agencies in local communities. Suggestion also made that the state insurance commissioner be asked to address the conference in regard to group hospitalization and voluntary sickness insurance plans. The conference is to start at 1:30 and there is to be a dinner in the evening. Dr. Mitchell said that he contemplated requesting the Budget Committee to allow \$300 to take care of the expense of this meeting.

Psychiatric Clinics

Dr. Larue Carter, chairman of the Mental Health Committee, and Dr. George C. Stevens, director of the Division of Medical Care of the State Department of Public Welfare, spoke to the Committee in regard to a contemplated program of psychiatric clinics. The proposal is that psychiatric clinics be held throughout the state upon invitation of local county medical societies and in cooperation with local psychiatrists in communities where such specialists are practicing. Dr. Stevens and Dr. Carter told of the contemplated appointment of an advisory committee of the State Welfare Department to be composed of laymen and four physicians, to have charge of the psychiatric program. The Committee authorized the Committee on Mental Health of the State Association to cooperate with Dr. Stevens in setting up such a committee and formulating a program for this work. In short, the tentative program presented, which was approved upon the motion of Dr. Baker, seconded by Dr. McCaskey, follows:

(1) Psychiatric clinics are to be held for indigents who are referred by local physicians.

(2) Clinics are to be under the supervision of Dr. Stevens of the State Department of Public Welfare.

(3) A liaison committee is to be appointed to work with the Department of Public Welfare, composed of four physicians and three to five laymen who are to be approved by the Indiana State Medical Association.

(4) Establishment of facilities for insulin and metrazol treatment.

(5) Means of getting patients returned to the community and a preventive mental hygiene program.

(6) Nothing shall be done in the counties without the approval of each local county medical society affected, and the entire program is to be geared in with the "Indiana Plan."

The above plan was approved in principle by the Executive Committee.

The Journal

Topics of the month for 1939. The following topics of the month set by the Editorial Board for 1939 brought to the attention of the Committee:

January—Pneumonia;

February—Venereal Diseases;

March—Speech and Hearing Defects, and the Mal-adjusted Child;

April—Cancer;

May—Allergies (Hay Fever, Asthma, Hives, Urticaria, Angioneurotic Edema, Eczema);

June—Insect Borne Diseases (Malaria, Typhoid, Dysentery, Rocky Mountain Spotted Fever);

July or August—Mental Diseases—Prevention of Insanity.

Additional topics to be featured, but not yet definitely scheduled, include: Heart Disease, Tuberculosis, Crippled Children (Posture), Drug Addiction, Diabetes, and Geriatrics.

LOCAL SOCIETY REPORTS

ADAMS COUNTY MEDICAL SOCIETY held a meeting at Decatur, November eleventh, with Dr. R. E. Daniels of Decatur as principal speaker. Dr. Daniels talked about the Medical Reserve Corps.

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BARTHOLOMEW COUNTY MEDICAL SOCIETY met at Columbus, October twenty-fifth, with thirteen members present. The entire time of the meeting was given to a discussion of medical economics as pertains to indigent practice.

* * *

CARROLL COUNTY MEDICAL SOCIETY members held a meeting at Flora, November tenth. Dr. Frank Gastineau of Indianapolis talked on "Some Common Skin Diseases; Causes and Treatment."

At the October thirteenth meeting of the Carroll County society, Dr. Goethe Link of Indianapolis talked on "Goiter." The meeting was held at Burrows in the new office of Dr. George Wagoners.

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DAVISS-MARTIN COUNTY MEDICAL SOCIETY met in Washington, October eighteenth to hear Dr. F. E. Schmidt of Lederle Laboratories talk on "Pneumonia." A moving picture illustrated the talk.

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DEARBORN-OHIO COUNTY MEDICAL SOCIETY held a meeting in the office of Dr. E. R. Wallace, of Aurora, October twenty-seventh, when Dr. C. N. Manley of Rising Sun talked on "Intravenous Therapy."

* * *

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY met at the Hotel Roberts in Muncie, October eighteenth for a business meeting and round table discussion of matters of medical and lay education. Forty-five members attended. A committee was appointed to reorganize the methods of the society along lines of postgraduate education, and to make a series of programs for next year with an appointed speaker for each program. The program is to follow the suggestions of Dr. Baker, president of the State Association.

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY held a meeting at the Hotel Roberts, Muncie, November fifteenth. Dr. M. G. Schulhof of Muncie talked on "Renal Tuberculosis." Attendance numbered forty. Dr. M. A. Austin, councilor for the district, spoke of the need for raising state dues, and the society proposed and passed a motion giving Dr. Austin the approval of the society for such an increase as necessary.

Mr. John Herndon of Evansville, field representative for the Red Cross for Kentucky and Indiana, presented a resume of the first aid and life saving services of the Red Cross.

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FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY members held a meeting at the McFarlan Hotel in Connersville, October eleventh. Dr. Don Kelly of Indianapolis talked on "Treatment of Common Skin Diseases."

At the November eighth meeting, Dr. Clifford Straley of Cincinnati discussed "Diagnosis and Treatment of Heart Diseases." Attendance numbered fifteen.

* * *

FLOYD COUNTY MEDICAL SOCIETY held a dinner meeting at New Albany, November fourth. Dr. Franklin Jelsma of Louisville presented a paper, illustrated with lantern slides, on "Head Injuries." Fourteen members attended.

* * *

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY met at Mudlavia Sanitarium, Kramer, Indiana, November third. Dr. O. E. Fink of Danville, Illinois, talked on "Diagnosis of Acute Mastoiditis." Attendance numbered twenty-three.

* * *

FORT WAYNE MEDICAL SOCIETY met at the Fort Wayne Chamber of Commerce, October eighteenth, with Dr. Roger L. J. Kennedy of the Department of Pediatrics, the Mayo Clinic, as guest speaker. Dr. Kennedy's subject was "The Effect of Diseases of Childhood upon the Bones." Attendance numbered fifty-eight.

* * *

GIBSON COUNTY MEDICAL SOCIETY members held a meeting at the Emerson Hotel in Princeton, November fourteenth. Dr. J. Thayer Waldo of Indianapolis was guest speaker, his subject being "Focal Infections of the Mouth and their Relation to Health." Thirty physicians and dentists attended. New officers were elected as follows:

President, H. H. Alexander, Princeton;

Secretary-treasurer, O. M. Graves, Princeton.

* * *

HENDRICKS COUNTY MEDICAL SOCIETY members held a meeting at Danville, October twenty-eighth to hear Dr. P. E. McCown of Indianapolis talk on "Inflammatory new Formations of the Female Urethra and Bladder Neck."

* * *

HOWARD COUNTY MEDICAL SOCIETY members met at the Duchess Room in Kokomo, November fourth, to hear Dr. William Gabe of Indianapolis talk on "Management of Pelvic Infections." Attendance numbered twenty-five.

* * *

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY members held their November fifteenth meeting at the Indianapolis Athletic Club, when case reports were presented by Drs. M. A. Page, John Owen, John Kerr, J. E. Holman, John Hendricks, William King, and M. R. Shafer.

* * *

JASPER-NEWTON COUNTY MEDICAL SOCIETY held a meeting October twenty-seventh at the home of Dr. A. L. Cramp in Goodland. Dr. F. W. Peyton of Lafayette talked on "Office Gynecology."

JEFFERSON COUNTY MEDICAL SOCIETY held a meeting at King's Daughters Hospital, Madison, Indiana, on October twenty-fourth. Dr. John H. Warvel and Dr. Karl R. Ruddell of Indianapolis were guest speakers. The subject was "Diabetes."

KNOX COUNTY MEDICAL SOCIETY members held a meeting in the Jewel Cafe, Vincennes, November eighth. Dr. Pierce MacKenzie of Evansville was the principal speaker, his subject being "Cesarean Section Indications and Types of Operation."

LAKE COUNTY MEDICAL SOCIETY. The Lake County Medical Society met at Mercy Hospital, Gary, November tenth, at 8:30 p.m., with President Jones presiding.

Applications for membership were received from Drs. Margaret Tilden of Gary, Samuel J. Petronella of East Chicago, and Raymond J. Modjeski of Hammond, and were referred to the Council to be voted upon at the December meeting.

Dr. Groman presented an abstract of his report (made in full to the Council) regarding the proposed county-wide syphilis survey. On motion, this report was adopted.

Dr. Forster gave a brief resume of the work of his committee on hospital and sickness insurance; on motion, the report was accepted and the committee continued.

The employment of a full time lay secretary for the Lake County Medical Society was approved, after the report of the Council was made. A committee of eleven, previously appointed to consider this matter, was continued for the purpose of making arrangements necessary for the employment of the secretary.

Dr. Verplank moved that necessary steps be taken to incorporate the Lake County Medical Society under the laws of the State of Indiana. The motion was carried.

Dr. E. M. Miller of Chicago then addressed the society on "The Surgical Problems of Children."

The Council of the Lake County Medical Society met in called session at the Gary Hotel, November tenth, with Chairman Parramore presiding.

Dr. Groman, chairman of a special committee on the proposed syphilis survey for Lake County (the survey to be carried out under the joint direction of the U. S. Public Health Service, the Indiana State Board of Health and the Lake County Medical Society) was asked to make a report for his committee. He stated that preliminary arrangements had been made and that these had been favorably passed upon by Dr. Kelly, a representative of the Board of Health. Dr. E. M. Shanklin was named to act as director for the survey. The report was accepted and approved by the Council.

Dr. Forster, chairman of another special committee to investigate the matter of hospital and voluntary sickness insurance, spoke for his committee, advising that several meetings had been held and that the committee had arranged with the Continental Casualty Company of Chicago to present a policy covering the matters under consideration. Dr. Forster stated that the company was willing to use Lake County as a trial ground and that, for the time being, their activities in this field would be confined to this county. The Council approved the report and voted to ask the general meeting to continue this committee. (See preceding report.)

LAPORTE COUNTY MEDICAL SOCIETY held its regular monthly meeting at the Annex, in Lacrosse, October twenty-seventh. Dr. L. T. Rawles of Fort Wayne was the guest speaker.

LaPorte County Medical Society held a joint meeting with the dental society, Thursday, November seventeenth, at the Spaulding Hotel, Michigan City. John W. Graves, M.D., of the Indiana University School of Dentistry, talked on "Some of the Interrelations of Medicine and Dentistry." There were twenty-seven at the dinner and forty at the meeting in the evening.

MIAMI COUNTY MEDICAL SOCIETY held a meeting at Peru, October twenty-eighth, for a purely business meeting. Attendance numbered fifteen.

MONROE COUNTY MEDICAL SOCIETY members met in Bloomington, October nineteenth, to hear Dr. F. E. Schmidt of Chicago talk on "Management of Pneumonias." Dr. Schmidt presented the moving picture of the Lederle Laboratories in relation to the subject.

MONTGOMERY COUNTY MEDICAL SOCIETY members held a meeting at Culver Hospital, October twentieth, with twenty-nine members in attendance. Dr. F. E. Schmidt of Chicago presented a moving picture on "Serum Treatment of Pneumonia."

MUNCIE ACADEMY OF MEDICINE invited the public to attend the meeting at which Dr. Morris Fishbein spoke, November eighth, at the Hotel Roberts in Muncie. Dr. Fishbein's subject was "American Medicine and the National Health Program."

NORTHEASTERN INDIANA ACADEMY OF MEDICINE met at the Kendall Hotel in Kendallville, November seventeenth, for a dinner meeting. Dr. M. W. Manion of Indianapolis was the guest speaker. His subject was, "Some Recent Advances in the Use of Bronchoscopy."

PARKE-VERMILLION COUNTY MEDICAL SOCIETY held a meeting at the Vermillion County Hospital in Clinton, October nineteenth. Dr. C. B. Bohner of Indianapolis was the guest speaker. His subject was "Diagnosis and Treatment of Allergic Diseases."

PORTER COUNTY MEDICAL SOCIETY held a meeting in Valparaiso, October twenty-fifth. Dr. Frederick Schnek of Vienna, now of Gary, talked on "Fractures of the Neck of the Femur." A moving picture film on "Traumatic Surgery of the Extremities" was shown.

POSEY COUNTY MEDICAL SOCIETY members held a meeting in the office of Dr. W. E. Jenkinson, Mt. Vernon, November eighth. Dr. Clyde Culbertson of Indianapolis gave a laboratory demonstration on the method of determining the types of pneumococcus; Dr. Verne K. Harvey, director of the Indiana State Board of Health, presented an illustrated talk, and Dr. Herman M. Baker of Evansville stressed several important points in the treatment of pneumonia.

STARKE COUNTY MEDICAL SOCIETY members met at Knox, November fourth. Mr. A. E. Kleinsmith of the Farm Security Administration in Starke County was the principal speaker.

The present officers of the society were re-elected to serve during 1939.

ST. JOSEPH COUNTY MEDICAL SOCIETY held a meeting at South Bend, October eighteenth. Papers were presented by Drs. F. P. Eastman, E. L. Rigley, and C. C. Hyde. A resolution calling for the employment of an executive secretary for the society was defeated.

TIPPECANOE COUNTY MEDICAL SOCIETY members met at Lincoln Lodge, Lafayette, November eighth, to hear Dr. Samuel M. Feinberg of Chicago talk on "Newer Developments and Misconceptions of Allergy." Attendance numbered fifty.

VANDEBURGH COUNTY MEDICAL SOCIETY met in Evansville, November eighth, at the Vendome hotel, for a dinner meeting. E. M. Eaton, M.D., of the Mayo Clinic, was the guest speaker, his subject being "Pain Characteristic of Various Neurologic Disorders," and some notes on "Protruded Intervertebral Disks." Attendance numbered forty-eight.

At this meeting, a resolution was passed to the effect that the Vanderburgh County Medical Society is opposed to the state taking over compensation insurance.

* * *

WAYNE-UNION COUNTY MEDICAL SOCIETY held a meeting at the Smith-Esteb Hospital, Richmond, November tenth. Dr. James O. Ritchey of Indianapolis talked on "Non-Specific Chest Conditions." Attendance numbered thirty-five. The meeting was held following the short course presented by the Indiana Tuberculosis Association.

At the October meeting, held October twenty-seventh at the Richmond-Leland Hotel, Dr. J. A. Britton of Chicago talked on "Present Standards of Industrial Medical Service."

* * *

OFFICERS OF SEVENTH DISTRICT MEDICAL SOCIETY

At the meeting of the Seventh District Medical Society held in the Indianapolis Athletic Club, November second, Dr. H. R. Willan, of Martinsville, was made president-elect; Dr. C. J. Clark, of Indianapolis, was elected counselor, and Dr. E. W. Dyar, of Indianapolis, was made secretary-treasurer. Dr. Oran A. Province, of Franklin, will succeed Dr. E. O. Asher, of New Augusta, as president for 1939. The next meeting of the society will be held in Martinsville.

* * *

ELEVENTH DISTRICT MEDICAL SOCIETY

Seventy-five physicians registered at the sixtieth semi-annual meeting of the Eleventh Indiana Councilor District Medical Association meeting held at Delphi, October nineteenth.

Because of rain, the golf tournament scheduled for the forenoon was omitted. The afternoon program was carried out as scheduled. The general subject was "Traffic Emergencies" and Dr. E. V. Hahn of Indianapolis discussed it from the viewpoint of the surgeon, Attorney Albert Stump of Indianapolis discussed legal phases, and Dr. E. B. Jewell of Logansport gave the internist's viewpoint.

A banquet and entertainment was given at Bowman's Fish House at 6:30 in the evening when Mr. Richardson, Evansville poet, gave a series of poems.

At the business meeting held in the afternoon, Peru was selected as the next place of meeting, and the meeting date was set for the third Wednesday in May, or May 17, 1939.

* * *

TWELFTH DISTRICT MEDICAL SOCIETY

The annual meeting of the Twelfth District Medical Society was held November 15, 1938, at the Irene Byron Sanatorium just north of Fort Wayne, Indiana.

The meeting this year was a departure from the usual in that it was held in conjunction with the Short Course in the diagnosis of tuberculosis given by the Indiana State Tuberculosis Association under the direction of the staff of the sanatorium. The afternoon session consisted of case reviews, ward walks, x-ray film reading, and demonstrations of pneumothorax procedure.

The staff of the sanatorium were hosts to the district members for dinner.

Dr. Cameron Haight of the Department of Thoracic Surgery, University of Michigan, presented the only paper at the evening session. His subject was "Empyema." He covered all the diagnostic aspects as

well as the conservative and surgical treatment of this condition. The main points were illustrated by slides.

The usual business meeting of the organization was held following the dinner. Dr. H. O. Williams, of Kendallville, was re-elected president, and Dr. S. R. Mercer, of Fort Wayne, was re-elected secretary. Dr. William C. Wright, Fort Wayne, was elected vice-president. Dr. E. M. VanBuskirk, president for 1939 of the Indiana State Medical Association, was present and made a few remarks pertaining to the present general situation facing the medical profession.

The registration totaled ninety-eight.

S. R. MERCER, M.D., *Secretary*.

* * *

THIRTEENTH DISTRICT MEDICAL SOCIETY

The Thirteenth District Medical Society held its annual meeting in Plymouth, November second.

Officers were elected as follows:

President, Dr. David Todd, Elkhart.

Vice-president, Dr. O. H. Richer, Warsaw.

Secretary-treasurer, Dr. F. G. Perry, Plymouth.

Councilor, Dr. Alfred Ellison, South Bend.

Dr. Robert M. Moore of Indianapolis conducted a heart clinic in the morning, and read a paper on "The Senile Cardiac Patient" at the afternoon meeting. Dr. L. H. Gilman of Indianapolis presented a paper on "Mind Takes a Holiday" and a paper on "Pneumonia" was presented by Dr. Robert V. Hoffman of South Bend.

Dr. R. L. Sensenich of South Bend and Dr. F. S. Crockett of Lafayette spoke on "Trends in Socialized Medicine."

LaPorte was selected as the place of meeting for next year.

WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

"He that carries a gift finds an open door."

"Old Year, good night!

New Year, good morning!"

A New Year's creed for the women of all the auxiliaries from your press and publicity chairman:

Rest. Recognize the normal limits of your energies and do not overtax them. Fatigue lays the foundation of many ills of the body. Mental depression is one of the little blue devils that come in the train of physical fatigue. Be faithful to the inner voice. Think your own thoughts and give others the same privilege. Cultivate a sense of humor. Neglect not the smallest opportunity for kindness, thoughtfulness, sympathy, and understanding. Scatter beauty in the world and beauty is yours. Give friendship, give love generously, and a world of friendship and love is yours. Find your work and do it. This is the way of youth eternal and happiness beyond expectations.

Floyd County Program

Mrs. Morton Wolfe is president. Advisory Committee: Dr. S. M. Baxter, Dr. A. N. Robertson, Dr. H. B. Shacklett.

September and October and November meetings will be luncheon meetings at Brody's hotel and followed by sewing at the hospital.

Program on "Conservation of Eyesight" led by Mrs. S. Baxter and Mrs. W. Hall.

Program on "Tuberculosis" led by Mrs. J. P. Gentile and Mrs. C. E. Briscoe.

December ninth meeting will have "Smallpox" for the subject, with Mrs. C. K. Kincaid and Mrs. H. K. Engleman in charge.

On January eleventh there will be an anniversary dinner meeting in charge of Mrs. George Day and Mrs.

(Continued on page xxi)

THE JOURNAL

of the

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS of THE MEDICAL PROFESSION of INDIANA

ISSUED MONTHLY

Under the Direction of the Council

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WOMAN'S AUXILIARY

(Continued from page 720)

Frank Tyler. On January thirteenth a luncheon meeting will be held, followed by sewing at the hospital. Subject of the meeting will be "Social Medicine." Mrs. P. H. Schoen and Mrs. Carl Schoen will be sponsors of the program.

February tenth, "Syphilis" will be the subject, with Dr. G. Irene Polhemus as speaker and with Mrs. W. Winstandley in charge.

The March tenth luncheon and sewing meeting will have "Pneumonia" as the subject for discussion, with Mrs. P. Pierson and Mrs. C. P. Leuthart in charge.

The April fourteenth meeting will have "Diphtheria" as its subject, with Mrs. George Day and Mrs. A. P. Hauss in charge, and the May twelfth meeting will feature National Hospital Day, and at this meeting the election of officers will be held. On June seventh the annual picnic is scheduled.

The special introductory offer of *Hygeia* is worthy of notice. Pin a dollar bill to your letter and send to Hygeia, 535 North Dearborn St., Chicago.

Mrs. W. F. HUGHES,

Press and Publicity Chairman.

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for the list of
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for 1939

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